ALCOHOL

Public Education and Social Policy

ADDICTION RESEARCH FOUNDATION TASK FORCE REPORT

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PUBLIC EDUCATION AND SOCIAL POLICY

Report of the Task Force on Public Education and Social Policy

Addiction Research Foundation, Toronto

The views expressed and positions taken in this report are those of the Task Force and do not necessarily represent the views or positions of the Addiction Research Foundation.

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PREFACE

Throughout the 30 years of its existence, the Addiction Research Foundation has used a variety of prevention strategies and tactics. The Task Force on Public Education was formed in response to a sense of uncertainty about the most productive and efficient ARF approaches to information/education/communication and prevention functions.

Some clarification was provided by Dr. J. B. Macdonald's February 1979 "The Mission of the Addiction Research Foundation" statement, which addressed the Foundation's need for more precision in its various areas of programming, for decisiveness and clarification in the areas of preventive education, and for a higher level of agreement concerning prevention strategies. The Foundation had for more than a decade recommended to governments a number of research-based policy approaches that would halt the liberalization of alcohol availability and thus curtail or diminish the resultant problems.

Influencing the varied Ontario target groups to achieve some measure of personal behavioral change is a complex undertaking. The resources mustered either by ARF, the Ontario Ministry of Health, Federal authorities, or colleague organizations in the field are minuscule compared to the alcohol beverage industries' fiscal resources, skills, talent, ingenuity, and creativity in promoting the use of alcohol. It became clear over the years that countermeasure activity, as measured by resource utilization, would always be in imbalance; a mere counterweight message on the part of public health forces would never be enough to have any significant impact. Meanwhile, research on the epidemiology of alcohol consumption and its consequences led to a conceptualization that as mean consumption in the population as a whole increases, associated problems also increase. By influencing overall consumption levels, then, some impact might be made on the apparent growing problems. It was

proposed to influence the various Ontario publics through social-health-oriented legislation designed to affect availability of alcoholic beverages in combination with a high-profile program of knowledge dissemination about the nature, extent, prevalence, and consequences of consumption. This combined approach would promise more effect than would continuing a rather undernourished program of information dissemination alone.

What might be the best ways to accomplish this dual objective? What has been the experience from other programs? What theoretical or practical information do we possess to help us choose between alternative ways of proceeding?

The initial terms of reference given to the Task Force by Dr. J. B. Macdonald in August 1979 were as follows (see Appendix A).

1. *To briefly review evidence concerning the potential of mass educational persuasion to modify attitudes in such a way as to have a favourable impact on public health.*

2. *In light of the above, to consider and advise on the practicality of the Foundation alone or in partnership mounting a program of educational persuasion designed to modify attitudes concerning hazardous alcohol consumption and to create public interest in appropriate control policies.*

In clarifying these terms of reference to the Task Force on November 7, 1979, Dr. Macdonald further delimited the scope of the evidence review: "To review the evidence concerning the potential of mass educational persuasion to modify attitudes towards hazardous levels of alcohol consumption such that *public support for appropriate control policies would be fostered*" (emphasis added).

The distinction between modifying attitudes "in such a way as to have a favourable impact on public health" and modifying attitudes "such that public support for appropriate control policies would be fostered" is critical for the Task Force and the Foundation. The latter implies that the outcome of an ARF public education campaign would be public support for control policy.

In light of the best knowledge available as of Spring 1980, the Task Force examined five models. Four of these explored the possibility of influencing different groups in

society who might in turn effect changes in legislation. The fifth (traditional) model was based on knowledge diffusion processes currently favored in public education programs. The literature, theories, models, and the experience of others were thus examined as widely and as deeply as the resources of the Task Force permitted.

Acknowledgments to the contributors to the work of the Task Force would be too lengthy to do them justice. Gratitude must, however, be expressed for the time and effort expended by these persons on our behalf. Robert Simpson gave unselfishly of his time and his research material to those parts of the report dealing with past and present alcohol policymaking in Ontario. Dr. Eric Single's contributions regarding dimensions of the alcohol issue were extremely helpful. Julian Roberts (University of Toronto) and Jenny Cafiso (ARF) provided written reviews of segments of the relevant literature. Mr. R. Robinson provided an overview of ARF's education efforts covering a 16-year period. Great assistance in reviewing other large bodies of relevant literature was also provided by Margaret Sheppard, Jenny Cafiso, Godwin Chan, and Diane McKenzie. Special thanks must also go to the following persons who made useful, pragmatic theoretical and personal presentations to the Task Force: Dr. Charles Atkin, Dr. Martin Block (both from Michigan State University), Dr. Gerald Caplan (Program Support and Advocacy Unit, Department of Public Health, Toronto), Dr. Brian Flay (University of Waterloo), Garfield Mahood (Non-Smokers' Rights Association), Robert E. Popham (ARF), Dr. James J. Rice (McMaster University), Dr. Wolfgang Schmidt (ARF), Norman Woods (ParticipAction). A list of individuals who provided written feedback to the Task Force is given in Appendix B. We are grateful to them all. Jerrine Craig provided a dynamic thrust during the early stages of the Task Force, in developing pragmatic pathways and information collections, before personal tragedy curtailed her involvement.

The accumulation of material and the preparation of the numerous draft reports were handled effectively and speedily by Sito Mungcal, with the assistance of Connie DaSilva, Judith Honey, and a number of other ERD staff; Kathy Grishaber and Suzan Pawlak (Word Processing); Rick Couture, Dennis Howard, Anthony Stewart and Melvyn Singh (Printing). Graphics by Keith Ballinger and Donald Murray. Editing by Catherine Cragg.

H. J. Schankula, D.H.A., M.A., Chairman

M. S. Goodstadt, Ph.D., Member

W. G. Albert, Ph.D., Member

T. R. Ide, LL.D., Member

D. V. J. Bell, Ph.D., Member

D. Nostbakken, Ph.D., Member

J. K. Conway, Ph.D., Member

K. G. O'Bryan, Ph.D., Member

N. A. Giesbrecht, Ph.D.,
Participating Consultant

1. Introduction

The Task Force members recognized early that, although the terms of reference appeared to be straightforward, they included three major issues that had to be addressed. The terms of reference, first of all, appeared to assume that there existed "appropriate control policies" which could be recommended and for which "public support" was being sought. This assumption required that the Task Force specify what was included under the umbrella "control policies" and what was meant by "appropriate." For this reason considerable attention was paid to the meaning (see chapter 7) and potential effectiveness of regulatory/control policies (see chapters 16 & 17). Only with a clear understanding of the meaning of this concept, and of the strengths and weaknesses of a control policy approach to prevention, is it possible to pursue the terms of reference related to "fostering public support" for such measures.

The second major issue concerned the role of "mass educational persuasion" in modifying "attitudes towards hazardous levels of alcohol consumption" and hence fostering "public support for appropriate control policies." The Task Force grappled from the beginning not only with the possible role of mass educational persuasion in producing changes in attitudes, but also with the techniques of translating such changes into "public support for appropriate control policies." This latter support appeared to involve a behavioral step beyond attitude change on the part of the public, which could be variously expressed: minimally by not opposing "appropriate control policies"; by supporting anti-liberalization efforts; or more dynamically by taking an active role in demanding, encouraging, and promoting government control policy action. It was also clear from our early meetings that "mass educational persuasion" could not be considered in isolation from other factors at work in initiating and promoting effective control policies.

The third major issue involved the question whether traditional influence attempts aimed directly at the individual's alcohol use were less satisfactory than the proposed combination of control policy *plus* mass persuasion.

The Task Force began by identifying a number of major "actors" or factors in the process of social policymaking in Ontario: ARF, the general public and specific publics, mass media, opinion leaders, interest groups, and policymakers. On the basis of these elements several major alternative routes to fostering control policies were identified (see chapter 18). Task Force members divided responsibility for reviewing the evidence related to each of these approaches. Another alternative, the traditional one, aimed at modifying the individual's knowledge, attitudes, or behavior regarding alcohol, was also examined in order to have a better understanding of its weaknesses and what might be required of an alternative approach, and also to provide information on how such techniques as the use of the mass media might be employed to achieve the objectives of the newly proposed control-policy/mass-persuasion approach.

The Task Force report presents:

1. a brief historical overview of alcohol problems, economics, conceptualizations, and solutions in Ontario,
2. a review of the effectiveness of education/information approaches, and
3. a review of the impact of regulatory/control policies regarding alcohol.

The report concludes with an extended consideration of alternative avenues the Foundation might explore in promoting its policy recommendations for the prevention of alcohol-related problems.

HISTORICAL OVERVIEW OF ALCOHOL PROBLEMS, ECONOMICS, CONCEPTUALIZATIONS, AND SOLUTIONS IN ONTARIO

This first part of the Task Force's report summarizes demographic assessments, public perceptions, conceptualizations, and institutional activities related to alcohol use and attendant problems during the past three decades in Ontario - that is, since the origins of the Addiction Research Foundation. The purpose is to establish the background against which current concerns, activities, and future planning are to be understood.

Several important lessons are to be learned from taking a historical perspective:

1. Alcohol use and problems have changed over time.
2. Perceptions regarding alcohol problems, conceptualizations regarding their etiology, and proposed solutions have not been and are not now static, but have evolved over the years as a result of experience, research, and changes in the political culture of Ontario society.
3. Perceptions and proposed solutions, as they have varied over time, have also varied among interested parties: at different points in time the Ontario government, the Addiction Research Foundation, and the various elements of the beverage alcohol industry have agreed or differed with each other in defining problems related to alcohol use and in proposing solutions.
4. Present thinking about alcohol use and problems and the proposals made for future action have not arisen out of a vacuum but reflect a stage in the progressive development of conceptual and empirical analysis.
5. Past experience indicates that further changes will occur in attempts to deal with the place of alcohol in Ontario society and the prevention and amelioration of problems.

The current process of review will deal, in turn, with an overview of the nature and

extent of alcohol use in Ontario and of associated problems; public perceptions concerning alcohol problems and theoretical conceptualizations about the origin of and solutions to alcohol problems; and the nature and extent of attempted solutions to these problems, as well as the effectiveness of such attempts. This historical exposition will lead to a consideration of the most recent recommendations being made to prevent alcohol-related problems.

2. Alcohol Consumption in Ontario*

The purpose of the present review of drinking patterns in Ontario is twofold. On the one hand, it is instructive to examine how the use of alcohol has changed during recent decades; on the other hand, it is important to know the background for the concern being expressed.

Since 1950 there have been substantial increases in aggregate consumption, per capita consumption, and per adult (aged 15 and older) consumption in Ontario. The aggregate consumption rose from 24.21 million litres of absolute alcohol in 1950 to 68.97 million litres in 1974. Per capita consumption rose 59%, from 5.37 litres to 8.52 litres between 1950 and 1974; per adult consumption increased 60%, from 7.26 to 11.61 litres during this time.** The adult rates for the last few years show some fluctuations: 11.68 litres (1975), 11.63 (1976), 11.76 (1977), and 11.82 (1978) (based on LCBO Annual Reports).

In the last two decades the per adult rate for Ontario has typically been above the Canadian rate. For example, in 1966-67 the Ontario figure was 9.22 litres per adult compared to 8.54 for Canada and in 1973-74 the figures were 11.59 (Ontario) and 11.01 (Canada). Therefore, although the rate of increase has been somewhat steeper for Canada as a whole than for Ontario, the Ontario level has been consistently higher. Of the 10 provinces, only British Columbia and Alberta have higher per adult rates than Ontario. (Based on a report by the Research Bureau, Non-Medical Use of Drugs Directorate, 1976.)

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* A primary resource in the material that follows was the report by Single and Giesbrecht (1979a).

** Other estimates, while slightly different, reveal similar trends. For example, Israelstam (1977, table 49) reports an increase in Ontario of 116.2% in consumption of alcohol from 1945 (5.01 litres of alcohol per person 15 and over) through 1950 (7.22 litres) to 1973 (10.53 litres).

It should be noted that the rates reported are based on official sales figures and employ standard conversion factors for translating beverage volumes into absolute alcohol volumes. They do not take into account estimates of unrecorded consumption or adjustments related to shifts in beverage choice among wines since the late 1960s. Single and Giesbrecht (1979b) conclude that the 16% conversion factor for wine probably overestimates total consumption by about 2%, but because unrecorded home-produced wine is not included, the official figures underestimate total consumption by about 6-7%; therefore, consumption derived from official sales data and using the standard conversion factors underestimates true consumption by about 4-5% (1979a, p. 25). Using the more appropriate conversion factor for wine (without correction for home production), the recent years' consumption rates have shown greater stability than in previous decades: 11.32 (1973-74), 11.45 (1974-75), 11.41 (1975-76), 11.36 (1976-77), 11.50 (1977-78), 11.50 (1978-79) litres per year for those 15 years and over (ARF, 1980, table 7M).*

Long-term trends reveal a general and large increase in alcohol consumption. Nevertheless, there have been noticeable fluctuations including declines (i.e., 1954, 1958, 1966) and plateaus (i.e., 1969). Such fluctuations are to be expected in any analysis of trends in human behavior; some may be explainable in terms of economic factors or other external events (e.g., strikes), while others at the present time are not explainable. The recent five-year plateau may, for instance, represent any combination of:

- a temporary and non-significant fluctuation due to chance or other non-salient factors;
- a change in some characteristic of the consuming population;
- a response to the recessional characteristics of recent economic trends; or
- other factors, including the possible impact of recent efforts by government and other agencies to deal with alcohol problems and a growing awareness among the general public concerning alcohol use and its associated problems.

In summary, the per adult rate of consumption increased substantially over the last three decades. It increased at an even greater rate in the late 1960s and early 1970s

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* Based on fiscal rather than calendar years.

than in previous periods. In the 1950s the mean annual increase in consumption was 1.28%; in the 1960s it was 1.76%; and in the first four years of the 1970s it was 4.38%. In recent years it has leveled off.

Just as levels of consumption have changed over time, so too have beverage preferences altered. Although beer has continued to be the preferred beverage, there has been a growing trend toward the consumption of wine and spirits. In terms of absolute alcohol volumes, beer constituted 65.6% of sales in 1950, distilled spirits 27.6%, and wine 6.8%. By 1974, the proportions were 51.3% for beer, 38.8% for spirits, and 9.9% for wine. More recent data indicate that the trend toward wines has continued: in the 1978-79 fiscal year 48.0% of the absolute alcohol sales represented beer, 38.1% spirits, and 13.9% wine (based on the 53rd Annual Report of the Liquor Control Board of Ontario). Therefore, while beer and spirits constitute the major share of alcohol sold in Ontario, a smaller but rapidly growing proportion represents wine.

A reduction in proportion of total sales does not, however, necessarily imply a reduction in per capita sales for any major beverage type. Although the proportion of total sales accounted for by beer, for example, fell from 65.6% in 1950 to 51.3% in 1974, beer consumption increased 23% between 1950 and 1974, from 4.81 to 5.93 litres per person aged 15 and older.

More detailed information on sales by beverage category indicates a diversification of preferences in Ontario. In 1967, beer, Canadian whisky (rye), domestic fortified wine, and domestic gin, the four most popular beverages, constituted 85.5% of the alcohol consumed; however, within seven years the proportion accounted for by the "top four" had declined to 78.4%, and domestic rum had replaced domestic fortified wine in the third-rank position. By 1974 fortified wine had dropped from third most popular to seventh.

Many types of less popular beverages increased in sales during this period, particularly domestic 7% sparkling wine, imported ciders, imported wines (red, rosé, sparkling, and white), imported vodka, and domestic red and rosé wines. All of these had levels in 1974 that were four or more times their 1967 sales volume. In terms of percentage of total sales, the consumption of these beverages was small, but these

changes are clear indication of diversification of drinking tastes. The diversification is evident in the shift toward rum, vodka, and imported wines such as to change the rank order of the "top ten" beverages, and in the increase (from 4.8% in 1967 to 8.3% in 1974) in the percentage of total sales accounted for by beverages other than the "top ten."

Changes in the use of alcohol are associated with many other societal developments in alcohol support structures including general availability and in particular the number and type of outlets from which it can be obtained or in which it can be consumed. As indicated above, preference for beverage types has become more diversified in Ontario; a parallel development has been a trend toward greater variation in the types of on-premise outlets. Of the 1,888 licensed outlets in 1950, nearly half (45%) were hotels; public houses (serving only beer) accounted for 20%. By 1975 there were 4,768 on-premise establishments, of which only 28% were hotels and 3% public houses. Restaurants had become the most prevalent type of outlet (40%), and there were also substantial increases in the number of licensed social, fraternal, labor, and veterans' clubs. Furthermore, alcohol became available in such places as theatres and recreational facilities in the later 1960s. Overall, the 5.7 on-premise outlets per 10,000 adults in 1950 increased to 7.8 by 1975. By 1980 there were 6,527 on-premise outlets in Ontario, or 9.8 outlets per 10,000 adults; the majority were restaurants (65%), with hotels accounting for only 19% and taverns 8%.

A corresponding increase in off-premise outlets (liquor, beer, or wine stores) is evident over the last few decades. In 1950 there were 391 off-premise outlets in the province, or 1.2 per 10,000 adults. By 1975 there were 1,075, or 1.8 per 10,000 adults. Both LCBO and Brewers' Retail stores have increased in number, the LCBO stores at a somewhat greater rate. In 1950 there were equal numbers of LCBO and Brewers' Retail stores (i.e., 158); by 1975 there were 535 LCBO stores and 416 Brewers' Retail stores.

Most alcohol consumption in Ontario does not occur in on-premise outlets. Information for 1970 based on dollar value of shipments indicated that only 16.6% of the shipments went to on-premise outlets (Schmidt, 1972). More recent information indicates that "in fiscal year 1978 about 13% of the dollar value of sales of wine,

spirits and imported beer represented sales for on-premise consumption" (The Brewers/ARF File, 1979, p. 12). Single and Giesbrecht (1979a, p. 47) note:

> *The evidence suggests that the proportion of alcohol consumed in public was greater in the 1950s and 1960s than in the 1970s. There is no clear trend since 1970. Although the relative amount of drinking in private has increased, it should also be noted that both private and public consumption of alcohol has increased at a rapid pace.*

From time to time there have been important changes in the marketing of alcohol beverages in Ontario. One such change occurred in 1969 when the first self-serve store was opened. Whereas previously buyers at all LCBO stores had had to fill out a purchase order, referring to lists of products and brands, the self-serve stores allowed customers to examine the purchases close at hand and select them from stocked shelves. This innovation was considered to work well (LCBO, 1970), and a policy was initiated in which all new outlets would become self-serve and many old stores converted. Consequently the number and proportion of self-serve stores increased: from three to 304 (53% of all LCBO stores) as of March 1977 (LCBO, 1977).

Single and Giesbrecht consider the introduction of self-serve outlets significant in two respects: it may represent a symbolic change toward greater acceptance of alcohol, in that buying alcohol is much like buying groceries in a supermarket; and at least one study (Smart, 1974) suggests that self-serve stores are likely to increase consumption. Another report, based on interviews with liquor store managers in northern Ontario, noted a dramatic increase in the number of brands available when stores were converted to self-serve (Giesbrecht et al., 1977, p. 273).

Regional and demographic differences in rates of drinking are evident in Ontario, the remote northern areas of the province having the highest rates. In the more populous southern areas, rates are somewhat higher along the Quebec border, but generally there is a lack of variation. In Toronto the consumption rate is roughly the same as in most of the rural areas.

Several large sectors of the population have increasingly contributed to changes in drinking styles and consumption levels: for example, new immigrants have brought with them their own tastes and drinking patterns; women are drinking in greater

numbers and drinking greater quantities; and a greater proportion of teen-agers are drinking than was the case in the late 1960s.

There are some important differences between abstainers and alcohol consumers in Ontario. Abstainers and persons who drink very little "tend to be of low income, the elderly, women, members of the fundamentalist religious sects, and poorly educated....males, young people, persons of high socio-economic status, and agnostics tend to consume relatively high amounts of alcoholic beverages" (Single and Giesbrecht, 1979a, pp. 52-53). However, it is noteworthy that even in groups characterized by lower levels of consumption the majority drink alcohol at some time, and some at levels of high risk. As disposable income rises and relative cost of alcohol falls (Holmes, 1976), the price becomes less important. However, although most people in Ontario can afford to drink, the aggregate amount of alcohol consumed is still considered to be influenced by its relative price.

Summary

The following general points summarize the Ontario experience over the last three decades:

1. Per adult consumption rates have increased fairly steadily over this period; somewhat steeper increases occurred in the late 1960s and early 1970s, followed by some leveling off in the late 1970s.

2. The number of on-premise and off-premise outlets has increased markedly to the point where the ratio per adult has almost doubled.

3. On-premise outlets have diversified, with restaurants replacing hotels as the most numerous type. The main change in off-premise outlets has been the introduction of self-serve stores and more recently mini-wine stores within supermarket environments.

4. The diversification of beverage choices and of drinking locales probably indicates a diversification of drinking occasions.

5. Traditional rural-urban differences in alcohol consumption levels appear to be disappearing, and at the same time several sectors within the population have introduced changed drinking styles.

In conclusion, new drinking practices appear to have developed in addition to older drinking practices. New tastes in wine and certain "white" spirits have added to, rather than replaced, traditional preferences for beer and rye. More of the population are drinking, and outlets, of greater diversity or type, have expanded the opportunities and occasions for consumption (Single and Giesbrecht, 1979a, pp. 53-54).

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3. Alcohol-Related Problems in Ontario*

Many factors have a bearing on whether an event or condition is designated an alcohol-related problem; these include the interests and activities of policymakers and civil servants, law enforcers, treatment personnel, education specialists, and researchers. Furthermore, cultural perceptions of appropriate and inappropriate alcohol consumption have an important role in problem identification. Technological and scientific developments - for example, new methods to measure blood alcohol levels of drivers - will influence problem visibility. Finally, "alcohol-related" problems are noticed in a society to the extent that the behavior of heavy drinkers violates social norms.

Investigations into the "negative" consequences of alcohol consumption tend to focus on those areas where aggregate statistics are available concerning threat to life or limb or a disruption of the public order. Aggregate data are typically crude and indirect estimates of the actual volume of alcohol-related problems. Furthermore, there are marked differences in the validity of statistical series; for example, rates of arrest for public drunkenness are highly influenced by enforcement practices, community tolerance for drunkenness, and alternative interventions such as detoxication centres.

Various methods are used to estimate the prevalence of alcoholism: surveys, mortality statistics, and aggregate consumption levels (see Popham, 1970). Estimates based on clinical diagnosis of alcoholism are not considered useful, since the majority of alcoholics are not in treatment; for example, a recent Task Force on Treatment Services in Ontario concluded that about 5-8% of the estimated alcoholic population was in treatment in a one-year period (Marshman et al., 1978).

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* This chapter is primarily based on an overview of statistics on consequences by Giesbrecht and McKenzie (1980).

A comparison of four methods of estimating alcoholism prevalence indicates that the one based on liver cirrhosis mortality produces a rate that falls between that based on consumption (the lowest) and that based on alcoholism mortality (the highest). For 1973 data the prevalence rates per 1000 population aged 15 and older, derived by the four methods, were respectively 38.3 (cirrhosis mortality), 36.3 (suicide), 32.2 (consumption), and 40.6 (alcoholism mortality).* There is some variation not only by method of estimate but also when data are considered by region of Ontario. However, two general conclusions emerge: rates of estimated alcoholism are highest for "the remote and sparsely populated northern regions of the province"; and in the "more populous southern areas the higher rates are related to urbanism," while the lowest rates are found in the southern rural areas, especially in the region surrounding Toronto (Single, 1979; also Marshman et al., 1978).

Liver Cirrhosis Mortality

Liver cirrhosis mortality has frequently been considered the "indicator *par excellence*" (Schmidt and Popham, 1974, p. 7) of the prevalence of heavy consumers in a jurisdiction for four reasons: it is not too rare; the proportion of all cirrhosis deaths attributable to alcohol is substantial; variations in rates of non-alcohol-related cirrhosis deaths are minimum; and data are not affected unduly by differences in diagnostic or selection criteria or by reluctance to report because of social stigma attached to the condition. Although there is little direct evidence to confirm the latter two criteria, the first two are substantially supported.

Data for Ontario indicate that a large and growing proportion of liver cirrhosis deaths are clearly linked to heavy consumption, that the rate of liver cirrhosis deaths has increased dramatically in recent decades, that there is a high correlation between these statistics and the rate of consumption, and that middle-aged and older males are the most vulnerable to this cause of death. Schmidt (1977, p. 20) estimates that in 1965 between 58% and 65% of the cirrhosis deaths in Ontario were caused by alcohol use, and by 1974 the estimated proportion was in the 79-81%

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* The three mortality-based methods of estimating prevalence are derived from Jellinek (1959) and the consumption-based method from Ledermann (1964).

range. Schmidt and Popham (1978) report death rates from liver cirrhosis among alcoholics as compared with the general population as in a ratio of 9.09 to 1.

Over the past decades there has been a substantial increase in the estimated number of alcoholics in Ontario. Estimates in the rate of alcoholism based on liver cirrhosis mortality (Jellinek, 1959; Popham, 1970) indicate a 147% increase in the rate over 23 years, from 14.7 alcoholics per 1,000 (aged 15 and older) in 1950 to 35.8 in 1973. During the first 15 years (1950-65) the annual average increase was 4.0%; and during the later eight years (1966-73) it was 6.5%; this difference was largely due to the dramatic increase of 22.7% between 1970 and 1973.*

Trend data for Ontario indicate that the overall increase in alcohol consumption in Ontario between 1932 and 1973 was accompanied by an increase in cirrhosis deaths: a correlation coefficient of r = 0.92 is reported for these series (Schmidt, 1977, graph 8). Recent statistics on liver cirrhosis mortality and alcohol consumption for Ontario indicate a leveling off in consumption (see chapter 2) accompanied by a leveling off of the cirrhosis mortality rate.

Other Types of Alcohol-Related Mortality

The rate of death due to diagnosed alcoholism** underwent a 350% increase between 1950 and 1975, with an annual average increase of nearly 13%. This change was greatest between 1960 and 1974. The male:female ratio ranged from a low of

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* Changes in the male:female ratio demonstrate that increases in deaths due to liver cirrhosis have been more rapid for men than women. (The male:female ratios changed, for example, from 1.50:1 in 1970 to 2.16:1 in 1976.) Males in their 40s and 50s are increasingly vulnerable, with a 245% increase in their cirrhosis mortality rate between 1950 and 1975 - from 11.9 to 40.0 per 100,000 (Giesbrecht and McKenzie, 1980).

The direct relationship between liver cirrhosis mortality and the extent of urbanism noted in the North American data by de Lint and Schmidt (1971) seems to be changing. Both in Ontario (Schmidt, 1977) and in Canada generally (Bosavarajappa and Lindsay, 1976) the rural-urban differences in liver cirrhosis rates are no longer as disparate as they were in the early 1960s.

** "Alcoholism" is the most common cause of death among deaths classified as due to "psychoneuroses and mental deficiencies," ranging from 75.0% to 87.5% of the total. Data for 1950-1964 are estimates based on the alcoholism proportion of subsequent years, in which the average percentage was 80.96.

1.96:1 in 1965 to a high of 7.58:1 in 1967, although for most years it was approximately 3.5:1. Mortality rates for alcoholism were higher than for liver cirrhosis, but it should be noted that because of its definition and use, the classification "alcoholism" is a less reliable indicator than is liver cirrhosis.

Alcoholic psychosis is not a commonly reported cause of death in Ontario statistics: the number of cases increased from 8 in 1965 to 16 in 1976. Similarly the number of accidental poisoning deaths specifically classified as due to alcohol poisoning is small, ranging from 14 (1965) to 37 (1975), and from 15 (1965) to 41 (1975) for deaths identified as due to the "toxic effects of alcohol." A recent classification - "alcohol in combination with other drugs" - currently involves between 62 and 91 cases per year.

Although a number of other causes of death might be examined in which alcohol consumption is considered to have a bearing (see de Lint and Schmidt, 1976; Schmidt and Popham, 1975/76), only a few will be mentioned briefly. Between 1950 and 1975 the crude rates increased for alcohol-related motor vehicle accidents (up 12%), for suicide (up 51%), and for homicide (up 118%). Cancers of the upper respiratory and upper digestive system are becoming a more common cause of death since 1950 (up 118%). Other rates show a decline: rheumatic and degenerative heart disease (down 75%), accidental falls (down 46%), accidents caused by fires (down 9%), and pneumonia (down 24%).

There are several indications that communities in northern Ontario, which have the highest per adult consumption rate of the 11 regions of the province, also have more than their share of fatalities resulting from heavy drinking (Single and Giesbrecht, 1978). The northern region has the highest liver cirrhosis, alcoholism, and suicide rates (Single, 1979), as well as extremely high rates of mortality from accidents and violence involving heavy alcohol consumption (Giesbrecht et al., 1977).

Morbidity

A number of diseases are found to be more common among alcoholics or heavy drinkers than among the general population: these diseases include specific ailments

of the nervous, digestive, respiratory, and cardiovascular systems, as well as certain cancers (especially those of the upper respiratory and upper digestive tracts). Injuries from motor vehicle and other accidents are also more common (see Schmidt and Popham, 1975/76; also Lelbach, 1974). However, for this overview of aggregate statistics, only two diagnostic categories are selected - namely, first admission to Ontario psychiatric inpatient facilities with diagnoses of "alcoholism" and "alcoholic psychosis."

Alcoholism first admissions to Ontario inpatient psychiatric facilities multiplied between 1950 and 1975: from 2.4 to 79.1 per 100,000 persons aged 20 and older. The steepest increase occurred between 1950 and 1955; since then the annual average increase has been between 8.9% and 18.3%. While the overall trend in the rate is similar to the increase in alcohol consumption, the year-by-year increases (or decreases) do not correspond precisely. No clear trends are evident with regard to the male:female ratio of first admissions for "alcoholism." The ratio fluctuates between 3.8:1 and 7.3:1.

The rate of alcoholic psychosis first admissions doubled between the early 1950s and the early 1960s, and fluctuated around the level of 6.5 per 100,000 through the 1960s and early 1970s, dropping to 5.5 in 1975. The rate for this diagnosis is considerably lower than for alcoholism, and changes in the alcoholic psychosis rate are less dramatic. The overall trend for the male:female ratio with regard to alcoholic psychosis shows a slight peak around 1960 (5.4:1).

First admissions for these diagnoses as a percentage of all first admissions to psychiatric facilities shows a slight decline in male alcoholic psychosis admissions, a slight decline in female alcoholic psychosis admissions, a very large increase in male alcoholism admissions (3.3% to 24.1%), and an increase in female alcoholism admissions (0.5% to 5.0%). Thus the aggregate statistics on alcoholism and alcoholic psychosis first admissions do not support speculations that heavy consumption among women has increased more rapidly than among men over the past decade. Trends in the foregoing tabulations are generally in line with epidemiological data from Canada and the United States, which generally show no major shifts in male:female ratios for alcohol-related diagnoses in recent years (Ferrence, 1979).

Information on discharges from all hospitals provides further evidence of trends in alcohol-related diagnoses. Of the four diagnoses considered from 1965 to 1977, "alcoholism" showed the highest rate of increase, followed by accidental poisoning, cirrhosis of the liver, and alcoholic psychosis. The alcoholism rate increased from 99.9 per 100,000 aged 20 and older in 1965 to 212.2 in 1977. The liver cirrhosis rate increased from 60.6 to 112.0. The alcoholic psychosis rate increased from 10.0 in 1965 to 14.0 in 1975 and then dropped to 11.5 in 1977. The accidental poisoning rate more than doubled between 1965 and 1975 (82.0 to 169.2) and then dropped to 157.6 in 1977.*

Age-specific discharge data indicate that between 1965 and 1977 the proportion of cases in the 24-44 age group declined for liver cirrhosis, for alcoholism, and most dramatically for alcoholic psychosis. For the 45-59 age group the proportion increased for liver cirrhosis, increased for alcoholic psychosis, and declined for alcoholism. For those aged 60 and older, the greatest increase is evident for alcoholic psychosis, followed by alcoholism, with little change in the proportion for liver cirrhosis. Increases are thus generally concentrated in the middle to older age categories.

Several conclusions can be drawn from the morbidity data presented.

1. Nearly all the statistical data examined indicate increases in alcohol-related damage, although discharge data indicate a leveling off or slight decline since the mid-1970s.

2. The "alcoholism" rates reported for both first admissions to psychiatric facilities and discharges from all hospitals have increased very significantly, in both instances more than doubling between 1965 and 1975.

3. The increase in the rate for liver cirrhosis discharges (77.7% between 1965 and 1975) is in line with the rising rate of liver cirrhosis mortality (59.3% increase in the same period).

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* However, since an unspecified proportion of these accidental poisoning cases involved alcohol consumption, it is unclear whether the changes were primarily a reflection of changes in the use of alcohol, the use of other drugs or substances, or the use of a combination of alcohol and prescription drugs (Cooperstock, personal communication, 1980).

4. Male:female ratios indicate divergent trends depending on the series examined: there has been, for example, an increasing proportion of males among alcoholism first admissions and liver cirrhosis deaths and a declining, but still dominant, male proportion among alcoholism discharges. In general, the view that sex differences are narrowing is not supported by these statistics.

5. Age-specific data for hospital discharges and liver cirrhosis mortality generally show an increase in susceptibility of middle-aged and older groups to the health consequences of heavy consumption.

Alcohol and Road Accidents

Two sources of information point to an increasing rate of alcohol-related road accidents. Data indicate a great increase in the proportion of fatal accidents where the driver was judged impaired (rising from 2.6% of fatal accidents in 1968 to 15.6% in 1977). (Similar trends are not, however, evident in the proportion of fatalities classified as "had been drinking" or in the proportion of alcohol-related accidents involving property damage but not fatalities.) The sharpest increase in the proportion of fatal accidents involving impaired drivers occurred from 1965 (2.9%) to 1970 (12.1%), particularly between 1966 and 1968. These increases preceded the 1969 change in legislation which expanded the criteria for drinking and driving offenses, the wide-scale application of breathalizer equipment in the early 1970s, and the lowering of the legal drinking age from 21 to 18 in 1971. During this period the proportion of all types of accidents involving drivers who had been drinking but not to the point of impairment was decreasing. Therefore, the increases in fatalities involving impaired drivers appear to be in addition to any effect of legal changes in control, the use of detection equipment, and the greater legal availability of alcohol to the young drivers.

Convictions for alcohol-related driving offenses are the second source of information about changes in the prevalence of drinking/driving problems. The conviction rate per 10,000 persons aged 15 and older increased dramatically between 1950 and 1973, from 5.7 to 56.0. The 1969 change in legislation produced a sharp

increase in convictions, which rose by 53% in 1970. Furthermore, in the first full year after the lowering of the drinking age in September 1971, there was a 20% increase in the conviction rate. The proportion of convictions classified as "indictable" (the more serious offenses) decreased dramatically while the "summary proceeding" proportion increased. In 1950 only 37.0% of the total convictions were by way of summary proceedings; by 1955 the proportion was 70%, and by 1960 and thereafter 99%. It appears that stronger controls with regard to drinking and driving (i.e., new laws, sophisticated equipment to measure impairment, higher conviction rates) were accompanied by a decline in the use of charges and proceedings involving more punitive sentences.

Public Order Offenses

With regard to public drunkenness and other Liquor Act offenses, two main trends are evident. The first trend is the rise in the conviction rate followed by a steep decline after 1969. The rate per 10,000 persons aged 15 and older rose from 155.6 in 1950 to over 210.0 by the mid-1960s. The transition period of the late 1960s was followed by a sharp decline to a rate of 147.2 by 1973. The second trend is the declining proportion of offenses involving public drunkenness: between 1950 and 1967 the "public drunkenness" proportion declined from 68.7% to 54.6%.

These changes were probably influenced by the partial decriminalization of public drunkenness in Ontario, which was initiated during the late 1960s (e.g., Giffen et al., 1969). The subsequent establishing of detoxication and halfway house facilities in numerous locales in Ontario (e.g., Annis et al., 1976; Ogborne et al., 1978) was also accompanied by declining utilization of jail cells to deal with public drunkenness. One might speculate that another, possibly less significant, factor was the change in drinking styles and habits accompanying a diversification of beverage choices and drinking locales in Ontario. Some researchers (e.g., Ahlström-Laakso, 1971) have suggested that lower ratios of taverns per capita may be related to higher rates of public drunkenness, since the heavy consumer will have fewer places to get drunk unobserved. Conversely, the expansion of on-premise drinking establishments (as has been the case in Ontario) may have a moderating impact on the volume of

drunkenness on the streets and in parks.*

Two divergent trends are therefore evident in the use of the law to curtail alcohol-related problems. The decline in "public order" convictions in the late 1960s was accompanied by an increase in drinking/driving convictions about the same time. It appears that whether by explicit design or in response to broader social pressures, the drunk on the street was increasingly perceived as less of a serious law enforcement problem, while the drinking driver became the target of more intensive control measures.

Conclusions

Several public health and public order consequences of alcohol consumption have been considered. Over the last three decades the rates of alcohol-related deaths and illness have increased substantially. This increase is particularly evident in both mortality and morbidity data on liver cirrhosis and alcoholism. The statistical series for liver cirrhosis is considered a better indicator of public health consequences of heavy drinking, since it is less likely to be susceptible to arbitrary or extraneous factors involved in diagnosing the illness or cause of death. It is also possible that the tremendous increase in alcoholism cases in Ontario - as evidenced by first admissions to psychiatric facilities, discharges from all hospitals, and death rates - is influenced by a growing awareness in the medical community of alcohol problems and/or by the expansion of special units or programs dealing with patients so diagnosed. However, the impact of increasing levels of aggregate consumption is also an important factor. Trend data on morbidity and mortality classified as due to alcoholism show a particularly steep increase in the rates from the mid-1960s to mid-1970s, corresponding to the rapid rise in consumption of alcohol during this period. The increase in the liver cirrhosis and alcoholism rates is most dramatic among males in their 40s and older.

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* In some parts of Ontario a correlation between the consumption level and the rate of public drunkenness convictions has been noted. A study of the northwestern districts, with comparisons to the province as a whole, indicated that the rank order of rates of liquor offenses matched the rank order of consumption rates. Nevertheless, temporal changes in the rates did not follow the expected pattern (Giesbrecht et al., 1977, pp. 68-72).

Road accident statistics provide further evidence of increasing alcohol-related damage in Ontario. Sharp increases in the proportion of impaired drivers in fatal accidents are evident in the mid-1960s. The sequence of events suggests that special efforts and campaigns to curtail drinking/driving followed (Vingilis et al., 1979). It is apparent that special control efforts to reduce the public order consequences of heavy drinking in Ontario have undergone a shift in focus over the past decade: from public drunkenness and concomitant public order offenses toward drinking/driving.

Although the less widely publicized health consequences related to chronic consumption have also been increasing, preventive control programs comparable in scope to those focusing on drinking/driving have not yet been mounted in the public health area. The recent leveling off or decline in the rates for several alcohol-related morbidity and mortality indicators probably reflects similar patterns in the aggregate rate of alcohol consumption (Giesbrecht and McKenzie, 1980, pp. 14-16).

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4. Economics of Alcohol Use in Ontario

Although there have been numerous attempts to specify the "costs" and "benefits" of alcohol consumption, major conceptual problems are encountered in any exercise designed to draw up a balance sheet. (See, for example, Österberg, 1978.) The figures presented below should therefore not be construed as the basis for such an undertaking, but rather a brief sketch of the dimensions of alcohol consumption and related aspects when assessed according to their dollar value. Previous work along these lines may be found in Holmes (1976) and in a report by Giesbrecht (1977) largely based on Holmes's data. An extensive analysis of the economic impact of the alcohol industry in Ontario is available in Gay (1979).

An estimate of Ontario hospital costs for three diagnostic conditions for 1977-78 amounts to $35.3 million, consisting of $1.9 million for alcoholic psychosis, $19.1 million for alcoholism, and $14.2 million for liver cirrhosis.* The three diagnoses were those entered into the record as the principal or primary diagnosis; where they were secondary, underlying, or complicating conditions, the cases would not be included in the computation. Furthermore, other medical problems related to alcohol consumption would likewise not be included, although hospital treatment might be required. Therefore, the figure of $35.3 million is conservative.

Broader investigations of costs would need to include health as well as social or public order problems arising from alcohol consumption. Holmes (1976) estimated the proportion of cases due to alcohol consumption for seven general disease categories and 87 specific sub-categories in 1971. Using these data he arrived at a

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* These figures are based on average daily hospital costs for inpatient hospital treatment in Ontario. Information on the number of cases and averge length of stay was used in calculating the costs of hospitalization on the basis of a per day figure of $151.91 per patient for the 15-month period commencing 1 January 1977 and terminating 31 March 1978 (ARF, 1980).

total of about $116 million in health-care costs, 7.3% of the $1.6 billion expended during 1971 under the health insurance program of the province.

Although alcohol-related social costs are difficult to arrive at, Holmes estimated that in 1971 at least $114 million was lost in Ontario because of accidents caused by heavy consumers; this represented the value of reductions in labor productivity and is exclusive of wage or salary losses resulting from increased absenteeism. Other social costs included an estimated $50 million expenditure by provincial and municipal authorities in Ontario on public order problems. This could be considered a conservative figure, since Holmes assumed that heavy drinking was responsible for only 10% of the costs of the courts, correctional services, police, and firefighting services. He estimated the cost of fines and payments for alcohol-related driving offenses at $18.9 million. Finally, he included an additional $11 million for Children's Aid and $8 million for social welfare.

When Holmes's figures are summed, the total is $327 million. As indicated in his report, this is a conservative estimate. Since Holmes's data were for 1971, the figures are not specifically relevant to the current situation. However, his estimates indicate the relevant kinds of costs.

Estimates of alcohol costs in the United States vary considerably depending on the basis for their computation. These figures permit a rough comparison with Ontario if the difference in population (215 million to 8.3 million, or approximately 26:1) is taken into account.

Kristein (1977) cites a 1974 NIAAA report of the annual costs of U.S. alcohol abuse (in 1975 dollars) as: direct medical, $11.0 billion; indirect, $21.0 billion; other, $1.6 billion; total $33.6 billion. Kristein concluded that in comparison to the cost of hypertension, cancer of the colon and rectum, heavy cigarette smoking, and breast cancer, figures suggest that alcohol abuse "is probably the most expensive single health problem area in the U.S. today" (p. 258). Luce and Schweitzer (1978) estimated that alcohol abuse in the U.S. in 1976 cost $44 billion, in comparison to $28 billion for smoking. The figures for alcohol included: lost production, $20.6 billion; direct health care, $11.9 billion; motor vehicle accidents, $6.6 billion;

violent crimes, $2.1 billion; and other social costs, $2.7 billion. A report of the Departmental Task Force on Prevention (U.S. Department of Health, Education and Welfare, 1978) stated that "the economic cost of alcohol abuse has been estimated to be from $25 to $40 billion per year in lost time, health and welfare services, accidents and medical expenses" (p. 46).

The production, control, and sale of alcohol beverages in Ontario represent important economic activities and provide a substantial amount of government revenue. Approximately $1.4 billion ($171 per capita) was spent in Ontario on retailed beverage alcohol in 1977-78. Total Ontario government revenue derived from alcohol during the fiscal year 1976-77 was $394 million ($47.41 per capita), of which $306 million was net income from sales. (Data are derived from ARF, 1980, tables 5 and 40.) Alcohol production and related manufacturing activities in 1977 employed 18,260 workers and paid $322 million in salaries and wages (ARF, 1980). The advertising budget for beverage alcohol in 1978 constituted 7% ($61 million) of all money spent in advertising in the country (ARF, 1980).

In summary, efforts to estimate alcohol-related costs and benefits are problematic because of data and conceptual difficulties. The studies that have been completed suggest that alcohol abuse is one of the most costly single health problems, but at the same time the production and sale of alcohol generate substantial income for both industry and government.

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5. Public Perceptions Regarding Alcohol and Alcohol Issues

The many public opinion polls conducted during the last 50 years to identify the concerns of the general public are virtually unanimous in naming economic issues as the major concern.* Nevertheless, when the questions are related to health, alcohol and drugs are named as the most serious causes of health problems in Ontario, outranking stress, smoking, pollution, obesity, etc. Other evidence confirms this opinion. A number of examples are cited in the following paragraphs.

As part of an extensive 1974 Ontario survey of public attitudes toward a variety of existing and potential alcohol policies (see, e.g., Goodstadt et al., 1978), respondents indicated that alcoholism was considered to be a "very serious" problem by 27% and a "serious" problem "confronting people today . . . in Ontario" by a further 49%; this placed alcoholism fifth among eight possible problems, behind inflation (56% + 35%), drug abuse (41% + 44%), pollution (26% + 58%), and crime (28% + 52%), but ahead of unemployment, poverty, and energy shortages. However, when asked about the seriousness of problems associated with each of ten classes of drugs in Ontario, problems with alcohol were considered to be "very serious" by 26% and "serious" by a further 50%; in contrast 30% or more felt that heroin (36%), LSD/other hallucinogens (33%), and marijuana/hashish (30%) were "very serious" problems, although fewer respondents than for alcohol felt that these latter three drugs were "serious" problems (36%, 39%, and 37% respectively).

A survey of adults in five Ontario communities conducted in 1974 (White, 1974) found that 88% of respondents were concerned about drinking/driving in their city - this was as high or higher than concern about crime (77%), prescription drugs (66%),

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* In a 1980 Gallup Poll, health ranked highest (35%) on a question asking respondents to identify their "biggest worry." However, since the question and the response options were not the same as in previous polls, it cannot be concluded that priorities have changed.

air pollution (70%), or illegal drugs (88%). Sixty-two percent of respondents felt that there had been a drug use problem in their community in the past, although only 23% felt there was *currently* a drug use problem; only 3%, however, identified alcohol as the problem drug, in contrast to 28% identifying cannabis. When probed at greater length about alcohol, the majority considered alcohol to be a drug (66%), with a further 22% believing it to be a drug only "if abused or used in excess"; 70% in this extended interview felt that alcohol was a problem in their community, with more than half of these believing it to be a "very serious" problem. Alcohol was seen as causing most problems among "all groups" (i.e., unspecified) (31%) and "middle aged persons," chiefly by disruption of family relationships (23%) and increased traffic accidents (26%).

A 1978 survey of adults in Durham (Ontario) provides important data regarding public perceptions and attitudes regarding alcohol problems, drinking norms, and treatment of alcoholism. The area surveyed was selected as being representative of the entire province. The authors (Smart and Liban, 1980) concluded that "there is little need to modify many of the attitudes of the general public about driving and drunkenness, although there are segments with attitudes far from the ideal seen by educators" (p. 15). Some of the findings included:

1. *Most respondents expressed concern about alcohol abuse within the community, ranging from 98.6% to 77.2% agreement that something should be done about each of the five problem situations (e.g. family violence as a result of alcohol abuse). . . . Moreover, there was a high acceptance by the public of intervention in community alcohol problems by any one of a number of community agencies or persons. In fact, at least half of respondents thought that anyone who knows about an alcohol problem in the community should do something about it.*

2. *Proscriptive norms against drinking were generally expressed for the following situations: during working hours; prior to driving a car; as a parent spending time with small children; and when getting together with people at sports or recreation events. Light drinking (i.e., one or two drinks only) was prescribed when visiting parents, and just over half of the sample felt that this was an appropriate consumption level when with friends at home or when out at a bar with friends. Heavier drinking was tolerated most often when at a party at someone else's home; however, a substantial proportion of respondents also approved heavier consumption when out at a bar with friends and when with friends at home. There was no*

consistent norm dictating alcohol use when getting together with friends after work before going home; just under half of respondents felt that no alcohol use was appropriate in this context.

3. There was total normative agreement on several contexts when intoxication was prohibited: as a parent spending time with small children, during working hours, and prior to driving a car. There was no situation in which more than 6% of respondents felt that it was "sometimes all right to get drunk". Drunkenness was rarely condoned, and then only by a small proportion of the sample in a context where alcohol use is acceptable, i.e. at a party at someone else's home, with friends at home, and when out at a bar with friends.

4. Women were expected to do less drinking than men, and older persons were expected to do less heavy drinking than young adults. Abstinence was seen as the norm for under-aged individuals. Occasional drunkenness was tolerated most often among 21-year old males.

5. Overall, less than 10% of respondents condoned occasional drunkenness for at least one type of individual or in at least one type of context. Those who did condone it were typically young single men, either employed full-time or unemployed or a student, having no religious affiliation and seriously heavy drinkers.

6. Attitudes toward alcohol use compared well with reported drinking behaviour.

7. The majority of respondents thought that alcoholism treatment can be effective, that the community had a responsible role in helping with alcohol problems, and would know where to get help for a drinking problem of their own. Respondents with more negative attitudes toward the treatment of alcoholism tended to be older, less educated, from lower socio-economic classes and infrequent drinkers or abstainers.

Overall, there does not appear to be a need for global changes in drinking, drunkenness or treatment intervention. On the whole, the public expressed considerable concern about alcohol abuse within the community and a desire to help. They maintained definite norms against heavy drinking and drunkenness, demonstrated a belief in the value of treatment, and reported knowledge of where to get help for alcohol problems. It could be argued that too many people in the general public support drinking in many social contexts; however, the level of drinking approved is generally low. Heavier drinking was most likely to be tolerated in party situations, or less frequently, in bars.

> *Two minority subgroups of the population were identified as having less ideal attitudes than those of the general public: the older, retired male infrequent drinker generally felt that persons with drinking problems should take care of themselves, that the community had no responsibility to intervene and that treatment methods were ineffective. The younger single male heavy drinker frequently approved heavy drinking. An economical approach to attitude modification would be to concentrate on these two groups and not to attempt to educate the general public whose attitudes, if not perfectly adequate, are at least close to those that the educator would desire. (Smart and Liban, 1980, pp. 15-18; emphasis added)*

A more localized survey, conducted among London (Ontario) students (grades 7, 9, and 11) and a small sample of adults, was designed to assess "awareness of the societal consequences of overall consumption . . . and . . . the personal consequences of excessive alcohol consumption" (Faveri, 1979):

> *The overall findings emphasize the need for increased attention to public education dealing with the personal and societal consequences of excessive alcohol consumption. The findings suggest that the general public's level of awareness of basic information related to both the wise personal choice and social control approaches to alcoholism prevention is not high. Considering that awareness is a low level cognitive function and distinct from comprehension (i.e., internalized systematized knowledge) perhaps there is little reason to be surprised by reported increases in alcohol consumption among students and adults and/or lack of active widespread support for measures designed to limit availability. (p. 30)*

Public Opinion Regarding Alcohol-Related Legislation and Government Action

A number of surveys have inquired about present or possible legislation or government action that relates to alcohol use and associated problems. Opinions in this regard reflect a concern with alcohol and suggest that the majority of Ontario residents are satisfied with current legislation and control measures, and in some cases (e.g., related to alcohol advertising and minimum legal drinking age) would prefer a shift toward more control.

A series of surveys conducted by Gallup Poll (in later years occasionally commissioned by ARF) provide some information in this regard.

In May 1943, for example, 62% of Ontario respondents supported rationing of beer, a more restrictive control than the existing government curtailment of beer. In December 1958, 38% of a national Gallup Poll sample felt that there was more drunkenness in their community than there had been ten years previously; 11% felt that liquor had been a problem in their home. In response to the same question, in 1966, 39% felt that there was more drunkenness than ten years previously.

In March 1975, 57% of Ontario respondents (compared to 48% nationally) felt that "the liberalization of drinking laws over the past few years created more drunkenness"; 29% felt that it had resulted in no change; 5% were of the opinion that the legal changes had led to less drunkenness.

In August 1976 a Gallup Poll found that, over the previous decade, there had been a significant shift in opinion such that

> *Ten years ago, when Canadians were asked to name the chief cause of motor accidents, the largest single group (40%) pointed their finger at "careless drivers". Today, a majority (55%) lay the blame on drinking drivers.*

In this poll, 68% of Ontario respondents (64% of the national sample) felt that "teenage drinking is a serious problem in this community"; only 18% believed that it was not a serious problem. Of those who felt that a serious problem did exist, 40% (nationally) believed that the drinking age should be raised. Another question showed that, in Ontario, only 28% felt that the minimum legal drinking age should be 18 years or less (i.e., 72% felt that the current legal minimum was too low); 56% believed it should be 21 years. A 1977 Ontario Gallup Poll found that only 28% favored 18 as the legal minimum age; 54% favored the 21-year age limit.

With respect to other alcohol-related issues the Gallup Poll found that, in 1977 in Ontario, 38% wanted no lifestyle advertisements for alcohol; a further 35% favored fewer such advertisements. A total of 51% wanted alcohol advertisements in newspapers or magazines banned (21%) or reduced (30%); most of the remainder recommended no change in present practices. The corresponding figures for radio and television were: banned (29%), reduced (27%), and no change (39%). Finally, a localized issue concerned the sale of beer at Toronto Blue Jays baseball games; a

total of 44% favored this practice compared to 38% who were opposed to its introduction.

The most extensive assessment of public attitudes to a variety of existing and potential alcohol policies was undertaken by Goodstadt et al. (e.g., 1978). This study was based upon personal interviews from a random sample of 1,078 Ontario residents; the sampling and interviewing were conducted in 1974 by the York University Survey Research Centre. Results of the survey, which were very extensive,

> *revealed a general satisfaction with the current state of most alcohol control policies in the Province of Ontario. This was especially noticeable in the relatively few persons who felt that alcohol should be cheaper or more available from more outlets or during extended hours of sale. There was, in agreement with this support for the status quo, satisfaction with current advertising of alcoholic beverages, and overwhelming opposition to making alcohol available to even younger drinkers.*
>
> *Satisfaction with the status quo should not, however, be interpreted to mean that the overwhelming majority of respondents were not prepared to accept changes of any kind. The results of the study were particularly striking in that where a majority was not in favor of change in either a liberalizing or restrictive direction, there was always a sizeable minority (usually greater than 30%) that favored increasing restrictions on alcohol availability of all kinds. This extended from the restriction of alcohol sales to alcoholics and the general public, to an acceptance of significant increases in the price of alcohol and a ban on all advertising of alcoholic beverages. These findings suggest that there does not exist an overwhelming desire among the public for further liberalization of alcohol policies; there is, moreover, the basis for experimental attempts to deal with the problems of alcohol abuse through such measures as price manipulation and decreased availability.*
>
> *Current efforts to deal with the casualties of alcohol abuse were well, if over-optimistically, supported. This positive attitude towards treatment was further indicated in support for increased funding for this area of intervention. A major problem is, however, that treatment approaches might be seen as sufficient in themselves because of their popularity, whereas it is unlikely that treating casualties even at an early stage will have an important preventative effect.*
>
> *Prevention in its many primary and secondary forms received extensive approval from survey respondents. While the onus of prevention*

was placed largely on the shoulders of the individual, the government was perceived to have an important role to play in the prevention of alcoholism. The overwhelming number of prevention measures that could be taken and were approved are merely an increase in the intensity or coverage of current activities.

Receiving very substantial endorsement were efforts made in the areas of public and school education and in relation to the drinking driver. With respect to the latter, respondents were unambiguous in their support for more police action and harsher treatment by the courts. The majority supported compulsory education courses and license suspensions for those involved in impaired driving and jail terms for causing an alcohol-related fatal accident. These findings suggest that a strengthening of laws and penalties about drinking and driving would be in keeping with public opinion.

Significant in terms of prevention are two actions, one to be taken by government and one the responsibility of the individual. Respondents expressed a preparedness to accept an increase in the price of alcohol if it would help prevent problems associated with alcohol abuse.

They would also be prepared to reduce their own consumption if this would be of some help. In both cases there was an implied, and sometimes explicit caveat: that they would need to be convinced that the action of increasing alcohol prices or reducing their own consumption would have an effect on the overall problem of alcohol abuse. This suggests the need for prior education about the relationships between alcohol price and consumption, and between individual consumption levels and alcohol-related problems in society.

The few novel actions that could be taken by government include limiting the amounts that alcoholics could purchase and placing warning labels on bottles. Both of these measures received strong support. Although neither of them would likely have a major, direct impact, they could have symbolic value and help in furthering public debate about the issues. It is unlikely, however, that they would be successful without an educational program which promoted the rationale for their existence.

It is clear that a great deal of trust was placed in the power and value of education as a source of social change for the amelioration of alcohol problems. This same commitment to education as a preventative tool is found in many other areas of health and social policy, even though the research evidence raises doubts regarding its effectiveness. Within the field of alcohol control policies in Ontario, however, the problem of achieving change through education is compounded by (i) the absence of a government articulated alcohol policy, and (ii) a proliferation of ministries and agencies involved in discrete aspects of the production, control and marketing of alcohol and in the educational, social and health consequences of its use. Educational efforts will only be effective if they are clearly related

> *to explicit objectives arising from the goals of an articulated alcohol policy. Thus many policies have educational links and implications; the opposite is also true - education objectives frequently have implied links to policies (e.g. educating the young and the legal drinking age regulations). Effective actions in any policy or educational area will, therefore, be more likely when all educational policy elements are sufficiently and compatibly integrated.*

A smaller two-wave panel study of 126 residents of South London (Ontario) revealed results similar to those reported above for the entire province (Frankel, 1976).

A Market Facts survey of public attitudes towards film, liquor, and lotteries and gambling control in Ontario was conducted for the Ministry of Consumer and Commercial Relations in September 1979. Results of this study generally supported the findings of the earlier research:

> *The prevailing mood of the people of Ontario on the three areas of interest in this study is one of conservatism . . . . Concerning liquor policy, Ontario residents tend toward conservatism in the attitudes they hold. A majority (57%) of Ontario residents think that at 19 years, the present legal drinking age is too low and that the law should be changed to raise it. Concerning other liquor-related issues, it is found that a majority (80%) of people do not want alcohol to be sold at fast food restaurants, do not approve (66%) of topless waitresses at all, and think that Ontario teenagers drink too much (76%). Ontario residents are about equally divided on the question of the sale of beer and wine in grocery stores, and the sale of beer at sports events. (p. 12)*

Conservatism was also found with respect to the hours during which licensed establishments should serve alcohol and liquor stores should operate. It was also found that the overwhelming majority felt that "people in Ontario are drinking more alcohol now than they did five years ago" (79%) and that "traffic accidents involving alcohol are on the increase" (81%). The majority (87%), however, agreed with the statement "Raising liquor prices will not reduce the number of alcoholics," and disagreed with the statement "There are just too many licensed establishments around nowadays" (60%).

A survey conducted by Crop Inc. in 1979 supported earlier research, showing that 68% of Canadian adults favor prohibiting the advertising of alcoholic beverages (*Marketing*, May 5, 1980).

While it is instructive to examine public opinion regarding major policy issues, and although the results so far reported suggest a favorable public climate for some alcohol control policies, it is equally important to examine the opinions of the legislators in this regard. A proposal was developed within ARF in 1973 to conduct such a study, paralleling the survey of the general public already reported. This proposal, unfortunately, never received the necessary approval. A smaller survey of the attitudes of Ontario MLAs regarding alcohol control policies was, however, conducted in 1974 by Mr. B. Davey of the Ontario Inter-Faith Committee on Liquor Legislation (Ferrence and Brook, 1977). Forty-seven percent of all legislators (60% of all non-cabinet legislators) answered four questions concerning (a) alcohol advertising, (b) raising the legal minimum drinking age, (c) increasing counter-advertising by the government, and (d) raising the price of alcohol to bring it more closely into line with the proportion of disposable income it represented 40 years previously (i.e., an increase of 5½ times). Results showed that:

> *In general, Ontario MPPs express strong commitment to personally advocating and supporting alcohol control measures. All who responded would support this type of ban on advertising and two-thirds of these would advocate a total ban. All but one respondent would support current Government efforts to increase counter-advertising.*
>
> *Two-thirds express approval for the Provincial Government's recommendation to raise the drinking age to at least 19 years, and more than half (57%) would advocate a substantial raise in the price of alcoholic beverages.*
>
> *Regional variations are difficult to interpret because of the small numbers involved. In many cases, they probably reflect differences in the political distribution of MPPs. (p. 3)*

Although the above findings suggest that Ontarians would be receptive to a major effort to reduce alcohol-related problems through education and/or government action, a number of further observations are necessary. It is important to realize, as pointed out in other sections (e.g., chapter 15), that stated opinions or attitudes do not correlate well with behavior, and attitude change is even less predictive of behavior change.

Some of the specific problems of surveys in this regard are considered by Fields and Schuman (1976), including the influence of competing social pressures and the

misperception of other people's opinions. Secondly, while public opinion can change "positively" (for example, less prejudiced U.S. racial attitudes, Condran, 1979), opinions can change "negatively" (for example, less concern regarding energy, Richman, 1979). Thirdly, "public opinion" is a function of the survey/research methodology: most opinion polls refer to specific issues rather than general orientations (Dillman and Christenson, 1974); in contrast, a considerable amount of research (e.g., Rokeach, 1973, 1979) has indicated that a relatively few set values are more important than more particular attitudes or opinions in determining behavior. Rokeach did not, however, include "health" among his lists of most important "terminal" and "instrumental" values, because he believed that "health" (as also "biological survival") was *too important* and would show little variation between individuals (1980, personal communication); nor was health employed in experimentally manipulating values in order to affect smoking. In this latter case (Conroy, 1979) focus was placed on "self-discipline," since it was felt that what is required in order to bring about large-scale health changes is:

> *a comprehensive design that would include a massive effort: (1) to educate the public as to its role and responsibility in health maintenance; (2) to identify through appropriate research the attitudes and values that sustain the various self-defeating behavioral patterns; and (3) to provide an effective method of altering not only the attitudes and values involved, but also the specific behaviors. A considerable body of knowledge and experience exists to assure the achievement of the first objective, but the attainment of the other two goals will require an innovative approach for which evidence exists attesting to its promise, appropriateness, and efficacy. (pp. 200-201)*

Summary

The present review has demonstrated that: (1) *Health* has not been the problem of greatest concern for Canadians or Ontario residents when compared to other (especially economic) problems. Nevertheless, it is probably highly valued by the majority of the population, and in a recent survey a plurality of 35% identified health as their "biggest worry." (2) *Alcohol* is seen as one of the most important *causes* of health problems in Ontario. (3) But *alcohol addiction* is not considered to be among the serious health problems in Ontario. (4) Ontario residents appear to be conservative in their stated attitudes toward alcohol use. (5) Ontario residents appear to be supportive in their stated attitudes toward some government actions to

control alcohol availability and deal with alcohol-related problems. (6) Furthermore, Ontario residents appear to be supportive of the status quo and not in favor of further liberalization.

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6. Conceptualizations Regarding Alcohol Use, Problems, and Solutions

Ontario citizens are obviously concerned about alcohol as an important cause of health problems in this province. Different individuals, however, perceive the problem in different ways, and these conceptualizations could well condition responses to alternative attempts to deal with it. Conceivably, different individuals could have any combination of beliefs and attitudes about the nature of alcohol problems, benefits of alcohol, the role of government intervention, etc. In actual practice, however, beliefs tend to cluster into a small number of particular combinations which might be described as conceptualizations of alcoholism.* In principle, it is possible to trace the development of alternative conceptualizations.

Moralistic Concept

For a considerable period of time, people have subscribed to a moralistic concept of alcohol. Alcohol abuse, according to this view, is an indication of moral degeneration, caused by an inherent or acquired weakness in an individual's moral fibre. A RAND analysis (Johnson et al., 1977) of surveys conducted as recently as between 1971 and 1975 in the U.S. found no change in the proportion of respondents (approximately 65%) who felt that "alcoholism is basically a sign of moral weakness." The appropriate response to this degenerate behavior is some form of moral or spiritual regeneration through religious or quasi-religious approaches. Adherents of the moralistic concept disagree with each other about whether the government should allow the sale of alcohol (given its capacity to corrupt). This

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* Cf. Room (1974), who uses the term "governing images" in much the same manner. Note also the discussion in Simpson (1980) on which much of this section of the report relies. Conceptualizations of alcoholism are undoubtedly related to broader world views: Ries (1977, p. 340) discusses public acceptance of the disease concept of alcoholism in the context of three health-oriented world views: "(1) a religious-magical world view, (2) a sociological-psychological-medical world view, and (3) a world view of individual responsibility."

conceptualization places little importance on government-sponsored treatment centres. Indeed the notion of treatment in hospital as opposed to a mental institution or religious organization seems inappropriate.

Disease Concept

In the period following the Second World War, a conceptualization of alcohol abuse known as the disease theory gained popularity. The disease theory, often associated with the work of Jellinek (1960), has had a variety of formulations. Alcoholism as disease has been viewed variously as a hereditary disease, a form of mental illness, a way of life, or even simply maladaptive coping behavior (Ries, 1977). Adoption of the disease theory removed some of the quasi-religious stigma attached to alcohol abuse and permitted more adequate treatment arrangements for alcoholics.

Here a distinction must be made between two conceptions of the disease: alcoholism may be viewed as the state the alcoholic is in as a result of chronic over-consumption; or it may be viewed as a predisposing weakness (biological or psychological) that makes the alcoholic incapable of moderation. On this continent the disease theory is dominated by the latter conception.* This was not incompatible with the trend in government policy toward liberalization of alcohol availability, for it attributed the causes of alcoholism to some physiological or psychological condition which was unaffected by increased availability. Those who subscribe to the disease concept argue that alcohol is no more the cause of alcoholism than is sugar a cause of diabetes. The disease concept stresses that the problem lies in drunkenness, not drinking, and in alcoholism, not alcohol; and that since the causes of the problem are unknown, no method of primary prevention exists apart from early identification of alcoholics and programs for early treatment intervention before the full consequences of alcoholic consumption are experienced. Accordingly, legal measures intended to restrain overall consumption are held to be misdirected, ineffective, and unjustified (Popham et al., 1976).

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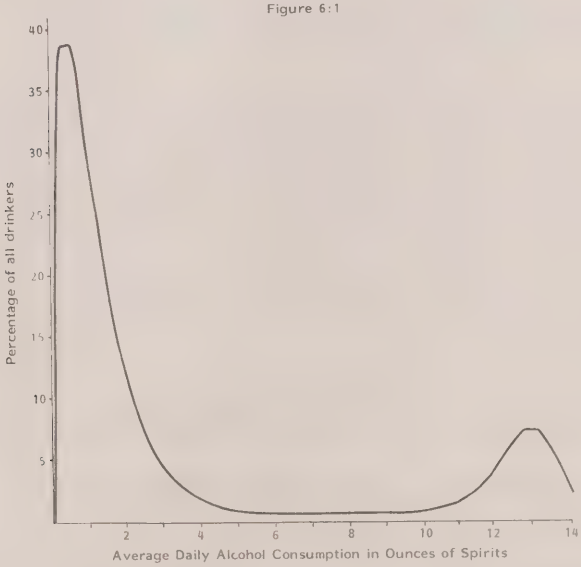
* National surveys conducted in the U.S. show a considerable increase in the proportion of respondents in agreement with the disease concept. Polls conducted in 1949 and 1951 showed about one-fifth of the sample supporting the disease theory. This proportion increased to approximately two-thirds by the mid-1960s (Haberman and Sheinberg, 1969, p. 1211).

A corollary of the disease theory is sometimes thought to be that when drinking behavior of a given population is graphically plotted on the basis of alcohol intake, the result should be a bimodal curve that depicts two different populations (figure 6:1). The first, normal drinkers, would show most people distributed around a central/normal level of consumption, with fewer people drinking at the upper and lower boundaries of normal drinking. The second population, alcoholics, would show most alcoholics' consumption concentrated around a central/alcoholic level with successively fewer drinking toward the upper and lower boundaries of alcoholic drinking. It is logically possible that there would be some overlap in the upper/normal and the lower/alcoholic group - the area of transition, in other words. The curve describing all consumers, then, would be "bimodal," as it would actually include two populations, showing a central peak for each. This conception of bimodality may continue to exist in people's minds regardless of statistical evidence to the contrary. There are, however, others who argue that a bimodal distribution is not an essential feature of the disease theory.

Figure 6:1



Percentage of all alcohol users at each level of average daily intake of alcohol, showing the type of distribution of alcohol intake that would be found if alcoholics were clearly different from the rest of the population in their drinking habits.

Adapted from: H. Kalant and O. J. Kalant, Drugs, Society and Personal Choice, Don Mills, General Publishing (Paperjacks), 1971, p. 102.

Sociocultural Concept

During the late 1950s and early 1960s, a number of academics, health professionals, and policymakers began to conceptualize alcohol use and abuse in a sociocultural context and developed what became known as the "integration model."* This model attempts to account for different rates of alcoholism found among a variety of social and cultural groups. Such variation, it contends, is a function of norms which support responsible drinking (prescriptive norms) in conjunction with other norms designed to condemn excessive drinking (proscriptive norms). If both are well defined and enjoy widespread public support, then the model predicts a low rate of alcoholism, regardless of the society's average alcohol consumption.

Proponents of the integration model encourage relaxation of drinking laws to remove the taboo and mysticism surrounding alcohol. Stripped of its "forbidden fruit" quality, alcohol would be integrated into the life patterns of people, who would be taught the fundamentals of responsible drinking. Coupled with strong social sanctions against alcohol abuse this pattern would lead to much more civilized, "continental style" drinking habits (Simpson, 1980).

Thus, it is argued that young people should be introduced to alcoholic beverages within the family setting so that they may learn to drink moderately and come to regard the activity as of no greater significance than eating. Restrictive control measures are seen both as reinforcers of an unhealthy ambivalence toward drinking and as impediments to the adoption of healthy drinking styles. With reference to the latter, the practices of certain European countries (for example, the use of wine with meals in France and Italy) are held to be conducive to moderation. It is felt that such customs should be promoted through education and, where required, through appropriate relaxation of legal restrictions. This concept received one of its most articulate expressions in the recommendations of the Cooperative Commission on the Study of Alcoholism (1967).

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* The main proponents of this model include Ullman (1958), Blacker (1966), and Wilkinson (1970). The perspective offered by Bacon (1978) in a recent statement on prevention of alcohol problems and alcoholism might also be interpreted as integrationist. A number of writers have summarized the main tenets of this model and its implications, including Room (1975), Popham et al. (1976), Schmidt and Popham (1978), and Whitehead (1975).

The disease concept of alcoholism is compatible with the integration model, but not necessary to it. Integration literature offers an explanation for the conforming behavior of the (non-alcoholic) majority. While it cannot account for why some people ignore the proscriptions and prescriptions of their society, it proposes that if the mores, norms, or regulations are confounding or contradictory, then ambivalence about drinking will give rise to problem drinking.

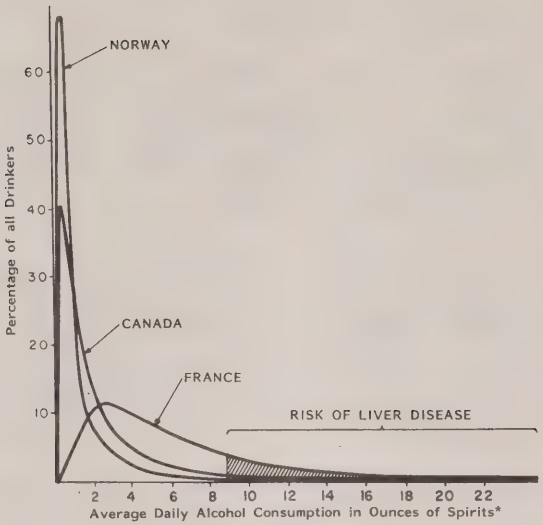
The integration model does not explicitly hypothesize how consumption would be distributed in its ideal society. However, the implications of the integration model in terms of the control and prevention of alcohol problems include emphasizing measures for the de-mystification of drinking and the establishment of "healthy" drinking styles. These translate into the relaxation of legal restraint, especially with respect to the drinking age and public access to alcohol. The development of strong proscriptions and sanctions against unacceptable drinking practices and behavior are also called for, though they receive less emphasis than prescriptive norms.

The integration model goes beyond the (micro) emphasis on the individual that is characteristic of both disease theory and the moralistic approach, and relates drinking problems to the (macro) social context within which drinking takes place. While the integration model implies that widespread use of alcohol carries minimal liabilities so long as the cultural setting encourages moderation, experience has shown that in countries where consumption is high, the accompanying proscriptive norms fail to operate effectively; for example, consumption in such countries as France generates exceedingly high rates of death from liver cirrhosis (51.7 per 100,000 adults in 1967).

"Availability" Concept (Single Distribution Model)

Throughout the 1960s, a small group of researchers (including several ARF staff) undertook epidemiological research to learn more about the characteristics of drinking populations as a whole. (Summaries or overviews of this work are available in Bruun et al., 1975; Schmidt and Popham, 1978; Parker and Harman, 1978.) They found that if all drinkers are located on a graph on the basis of their average level of consumption, the distribution would be described by a curve that is "unimodal and continuous" (see figure 6:2).

Figure 6:2
Distribution Curves for Alcohol Use in
Norway, Canada, and France, 1968



Source: H. Kalant and O. J. Kalant, Drugs, Society and Personal Choice, Don Mills, General Publishing (Paperjacks), 1971, p. 104.

* Annual average consumption (gallons of spirits): Norway, 3.24; Canada, 6.11; France, 16.50.

After plotting consumption data from various populations in Europe and North America, they found that mean consumption varied between populations, but that the measure of dispersion for frequency distribution did not appear to do so. Hence, the frequency of drinkers at all levels of consumption could be approximated as a function of the mean consumption. Moreover, the higher the mean consumption, the greater the frequency of heavy consumers to a disproportionate degree: that is, the mean tends to be elevated principally by the greater number of drinkers at the heavy-consumption end of the distribution. In figure 6:2, for example, although the figures are dated, the curves can be usefully compared. For France, a country illustrating a high problem rate, the high mean consumption reflects (1) not only a higher modal consumption, but also (2) a greater proportion of consumers drinking above the modal consumption and (3) a much greater proportion drinking at hazardous levels.

Over the next decade, researchers analyzed further cross-cultural evidence indicating that:

1. a strong and direct relationship exists between the prevalence of users of hazardous amounts of alcohol and the amount of alcohol consumed by the

population as a whole;

2. a given increase in mean consumption is associated with a much larger increase in the prevalence of alcohol-related problems (Bruun et al., 1975);
3. no clear break point exists in the consumption curve to demarcate heavy drinkers and alcoholics from non-problem drinkers;
4. no evidence has as yet appeared of unique susceptibility (physiological or otherwise) to alcoholism among alcoholics;
5. alcoholics constitute only about half of those drinkers whose alcohol use adversely affects their physical, social, or psychological well-being.

Together, these findings pointed toward what ARF researchers called the "single distribution model." This new understanding of the pattern of alcohol problems within a given population generated a revolutionary set of policy proposals. To the extent that these proposals urged reducing the availability of alcohol (hence our use of the term "availability" concept), they resembled in form the prohibitionist arguments, which arose out of the "moralistic" ideology. Contrary to widely believed premises of both the disease and integration models, increasing consumption of alcohol in the population as a whole *does* entail increases in all forms of alcohol abuse.* The researchers' findings showed, in other words, that the relative frequency of heavy drinkers is related to the overall consumption in a population as reflected in the mean, and factors that alter the latter may be expected to alter the former.

Since the same kind of distribution is found in populations that differ greatly in attitudes toward drinking, beverage preference, drinking customs, and educational and legal measures employed to combat the problems of alcohol, it is concluded that there is as yet no way to modify the prevalence of heavy consumers without altering the overall consumption across the drinking population. According to this theory, primary prevention is concerned less with changing the prevalence of current alcohol problems than with reducing the incidence of new problems; such measures, while reducing overall consumption, will not, therefore, necessarily be expected to

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* However, the availability concept is concerned with alcohol use and abuse at the macro or societal level; the validity of alternative models in dealing with the issues at the micro or personal-intervention level is therefore not necessarily negated.

have an impact on those already in the upper (heavy-consumption) tail of the distribution. Thus, while incidence might be slightly reduced in the short term, influence on prevalence would be expected only after an extended period of time (Popham et al., 1976, p. 616).

Regional and temporal variations in mean consumption are believed to be caused mainly by differences in the economic accessibility of alcohol and in the level of acceptance of drinking. Relaxation of legal restrictions to encourage the adoption of new, allegedly healthier drinking styles apparently serves only to reinforce higher levels of acceptance, and to add to, rather than replace, existing drinking habits (Single et al., 1980). Upward trends in the prevalence of alcohol problems could, it is proposed, be prevented through appropriate taxation measures, restraint on the liberalization of existing restrictions, and vigorous education to raise awareness of the social health consequences of a high overall consumption level.

Summary

The preceding discussion outlined four major conceptualizations of alcohol abuse and control. However, only limited systematic data are available to indicate which conceptualization is held by what segment of the general public at particular points in time. The anecdotal data that are available suggest that:

1. Popular conceptualizations about alcohol (i.e., widely held beliefs and attitudes) appear to have lagged behind researchers' conceptualizations by 20 to 30 years.
2. The popularity of the disease concept among today's public reflects researchers' viewpoints in the late 1940s and early 1950s.
3. Alcohol conceptualizations in some cases tend to dictate or prescribe appropriate policy responses.
4. Conversely, those who have a strong interest in particular policy recommendations tend to endorse a conceptualization compatible with their policy preferences.

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7. Alcohol Control Policies: Clarification of Assumptions

A recent review of the history and impact of health promotion in Canada emphasized "the need for a critical reappraisal of the health promotion field, one which takes into account its conceptual premises, the nature of its intervention strategies, and its evaluation methods" (Badgley, 1978, p. 35). As indicated in a previous chapter, the Task Force's terms of reference made assumptions about "appropriate control policies," their conceptualization, their range, and their potential impact. The present chapter will make some of these issues more explicit.

Control policies are a common feature of democratic societies. They include such measures as seat belt legislation, speed limits, regulations concerning the use of drugs, sanitation regulations, and so on. Where it is generally perceived to be in the public interest, government legislation on such matters is widely accepted.

"Alcohol control policy" commonly implies those government actions, frequently backed by legal measures, designed to produce significant effects among major segments of society (see, for example, Health and Welfare Canada, 1973). The notion sometimes conjures up the image of legal coercion of behavior through, for example, restrictions on alcohol availability and penalties for illegal alcohol use. Despite the fact that such regulations are often perceived as coercive, alcohol policies frequently involve no more actual coerciveness than is exercised by agricultural marketing boards and other regulatory bodies.* To avoid the connotation of coerciveness, it might be advantageous to refer to them as "alcohol regulatory policies." However, since the research literature and some government

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* As is indicated in chapter 17, the Ontario experience over the last few decades has been marked by increased accessibility to alcohol and less coerciveness regarding its use, compared to many other consumer goods and services (tobacco, non-prescription drugs, gasoline, for example).

activities (e.g., the Liquor *Control* Board of Ontario) have traditionally referred to alcohol control policies, we shall not introduce the confusion of a complete change in terminology.

We nevertheless feel that it is important to point out the wide range of possible alcohol measures. Attempts to influence drinking behavior and attitudes toward drinking can be classified into categories related to the concepts of power, influence, and authority (Bell, 1975). *Power* strategies include positive inducements to behave in a certain way and negative or coercive sanctions to deter behaving in another way. *Influence* refers to the range of persuasive strategies usually grouped in the category "education." One useful analysis of health-related influence strategies describes a range of possible interactions: from the mere provision of "information," through a more structured effort probably called "education," to what is described as "promotion." The use of *authority* is virtually always the exclusive prerogative of government. The wide range of possible authority strategies in alcohol control includes pricing policies, as well as regulations and laws concerning availability in terms of location and hours of sale, legal drinking age, and penalties for abuse of alcohol.

Authority, influence, and power obviously overlap considerably. The government passes laws in the expectation that they will be obeyed because they are legitimate commands from the established authorities; these laws, however, often carry heavy sanctions in case their mere proclamation is not effective in securing compliance. Indeed, government can also make use of policy to influence (in an educational sense) people to have a greater awareness of alcohol issues. Thus it has a very large range of available strategies. In contrast, organizations such as the Addiction Research Foundation must choose from a more limited set of possibilities. ARF does not have authority over the distribution or use of alcohol. However, it can presumably be very influential both with the public and with those officials who make government policy, provided that it selects its strategies carefully and presents its messages cogently and persuasively. Later chapters review evidence concerning alternative strategies available to both government and non-governmental bodies, and on the basis of this review will attempt to formulate recommendations for future changes in strategies that will provide better-informed, more effective, and more humane alcohol policies in Ontario.

Alternative Public Health Approaches: A Brief Historical Overview

A better appreciation for the nature and role of alcohol control policies is achieved by briefly placing current thinking within a historical framework. Examination of public health history since the industrial revolution indicates (e.g., Arnold and Banta, 1977; McKinlay, 1979) that the most effective forms of intervention have been the health policies imposed by governments to eliminate the agents or causes of disease, including policies to control the physical environment. In the early twentieth century major advances in the control and cure of disease through the development of innoculations and therapeutic drugs overshadowed concern with regulation and control. It is now debated (e.g., Badgley, 1978; Holtzman, 1979; McKinlay, 1979) how much further improvement in the health status of Western populations can be made through the current practice of curative (especially biologic) rather than preventive medicine. (See Rosen, 1977, for a review of preventive medicine in the U.S. from 1900 to 1975.)

There is also a conflict between an emphasis on individual responsibility and an emphasis on social and environmental approaches through government intervention; the issues in this conflict are discussed in terms of (a) the effectiveness of the competing approaches and/or (b) human values and individual freedom of choice.

The conflict between individual and broader social approaches is sometimes only implicit, becoming explicit when alternative recommendations are made. The Association of Canadian Distillers (Dubois, 1979), for example, stated:

> *It seems fairly clear to this industry, indeed to many people at large, that the best approach to drinking problems, social problems, problems of abuse of all sorts, is through education, the increase of awareness and the exercise of intelligent choice. (p. 2)*

Such views differ from those espoused by social researchers at the Addiction Research Foundation (1978), by international experts (e.g., Bruun et al., 1975), and by World Health Organization projects (e.g., Moser, 1979), whose major emphasis has been on the beneficial impact of regulatory or control policies.

Opinions regarding control policies have ranged from the view that individuals must

be responsible for themselves to the view that government has a duty to intervene (e.g., Winkler, 1978). Badgley (1978) distinguishes between five schools of thought relating to health promotion: (1) the *nihilist* approach - do nothing until one is sure that it will produce only the desired positive effects; (2) the *incremental adaptation* approach, which "assumes that the major changes which have occurred in health status have resulted from broader social forces which gradually transform society" (p. 29); (3) the *structural* approach, which emphasizes changes in the structure of society and in competing social forces rather than individual behavior modification; (4) the *regulatory* approach, which arises from previous experience with disease risk control; and (5) the *activist intervention* approach, which places greatest emphasis on individual behavior change especially through mass-media campaigns.

Among recent writers are several who argue for some degree of intervention. Cohen and Cohen (1978), in discussing the effectiveness of health education, conclude that:

> *Health education is not without merit; for some highly motivated groups it may be quite valuable. However, when it becomes the premise of public policy, it becomes pernicious . . . . Higher health costs and stagnating mortality rates can only be comprehended and solved in the context of the whole society, not on an individual level. (pp. 719-20)*

Holtzman (1979) states that "emphasis on prevention through individual responsibility for life-style change is likely to increase the disparity in health between rich and poor and detract from more effective approaches" (p. 25). Worden (1979) makes the same distinction, and draws the same conclusions, in discussing "popular" (i.e., "doing neat things with neat people") versus "unpopular" (i.e., policy oriented) approaches. Arnold and Banta (1977) make the point even more forcefully in claiming that:

> *In the near future, health policy makers . . . will be deciding about the new environmental issues in prevention . . . . The potential policy impact of their [e.g., atherosclerosis and lung cancer] control will be as important for the health of this century as was the control of cholera and smallpox in London in the 19th century. (p. 194)*

The divergence of views between individual responsibility and government control within the Canadian context is dealt with explicitly by Hill (1978) and by Lalonde

(1974), who claimed that the ultimate philosophical issue concerns the role of government in modifying human behavior, but concluded that "one must inevitably conclude that society, through government, owes it to itself to develop protective marketing techniques to counteract those abuses (i.e., related to current patterns of behavior)" (Lalonde, p. 37).

Differences in approach to health promotion and social policy run along other, though not necessarily unrelated, lines. Already referred to is the recent emphasis on curative rather than preventive medicine. Equally fundamental, however, are the non-health issues of economics and politics: health promotion, on occasion, runs counter to the perceived political and/or economic good of at least some segments of society (e.g., Breslow, 1977; Worden, 1979; Bauman and Banta, 1977; Haggerty, 1977; McKinlay, 1979; Morgan, 1978). Badgley (1978) is equally critical of the Canadian situation when he states:

> *The impact of these broader Canadian values on health promotion is reflected in the tacit recognition of existing political and economic interests which are not to be disturbed. As a result, what emerges is a field accorded a high place in public rhetoric, yet one which is constrained to a limited role in public service. (p. 37)*

Such economic and political forces do not operate in a vacuum, but to some degree reflect prevailing societal and individual values which frequently give little relative weight to health, and possess a consequently weak health-oriented constituency (Bauman and Banta, 1977; Haggerty, 1977).

The existence of differing viewpoints and different approaches in no way precludes a combined approach. Recent policy statements both in Canada (e.g., Lalonde, 1974; Gellman et al., 1977) and the U.S.A. (e.g., Cooper, 1977) include an emphasis on a multi-strategy approach to health promotion, giving weight to the four aspects of biology, environment, lifestyle, and health care organization. The relative weight of resources assigned to each of these components is difficult to ascertain: Lalonde (1974) indicated a significant shift toward lifestyle strategies; but Lee and Franks (1977) have demonstrated the difficulties in identifying and assigning a resource value to each element.

Objectives of Alcohol Control Policies

The concept "alcohol control policy" is multifaceted in other respects. Government policy can be directed at controls associated with the alcoholic beverage, such as regulation of its alcohol content; or with any subgroup of potential consumers, such as young people through drinking age regulations; or with the context of consumption, such as in public parks or at sporting events; or with any aspect of alcohol purchase at outlets. Less coercive policies can promote "educational" interventions for any of a large number of target groups, aimed at divergent objectives and through various media and/or processes.

Given the diversity of policy approaches and objectives related to alcohol, it is evidently inappropriate to ask "Does control policy regarding alcohol have an impact?" or even "What impact do alcohol policies have?" The more appropriate questions are "What impacts do the alternative alcohol control policies have, under which circumstances, for which audiences?" No uniform impact is expected; it will be dependent on objectives, target groups, and situations.

It should be evident from the previous discussion that any immediate policy objectives will be at least as varied as the policies themselves - objectives such as reducing drinking in public, reducing drinking in association with driving, increasing knowledge, improving physical fitness, and so on. More significant, however, than identifying and evaluating immediate objectives is the specification and assessment of ultimate objectives, that is, the "bottom line" reasons for the introduction of the policies (Winkler, 1978). These latter too can vary. A report of federal/provincial officials recommended that Canadian governments adopt policies with the following objectives:

> *personal adoption of non-hazardous practices related to alcohol; effective responses by governments, voluntary, and business organizations and professions to alcohol-related problems, and manufacturing, promotion, and distribution practices that help to reduce the risk of alcohol-related problems. (Gellman et al., 1977, p. 270)*

The focus may be on the reduction in the incidence of alcohol problems, or a reduction in the rate of increase of alcohol problems, or a reduction in the

prevalence of alcohol problems, or the promotion of health, or the promotion of health in order to reduce health problems, or the reduction of health problems in order to promote health, or the reduction of the spiraling costs of health care associated with alcohol problems, or the prevention of untimely deaths, or ...

Clear specification of the long-range, mid-range, and short-range objectives, and of the causal links between such objectives and policy measures, is essential; such planning is, however, frequently absent and can only be inferred from available evidence.

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8. Legislative Origins of ARF

A review of the legislative debate surrounding the original Act which set up ARF, and subsequent amendments to the Act, illuminates Ontario politicians' intentions and expectations regarding the role of the Foundation. Introduced for first reading on March 25, 1949, the original bill was titled "An Act to provide for the Alcoholic Research Foundation." The bill's drafters saw a strong link between the new organization and Alcoholics Anonymous. Despite the middle word in its name, the only goal specified for the Alcoholic Research Foundation on first reading of the bill was "to establish a hospital" modeled after similar AA hospital units in Buffalo and Rochester. The government took the view that one of the unfortunate by-products of the sale of liquor in Ontario was a number of alcoholics. In the words of Russell Kelley, then Minister of Health, "Rightly or wrongly, the people of this province have decided that liquor is to be sold in the Province of Ontario. Experience has shown that certain people are not able to control their appetite for liquor, and therefore, acquire a disease called 'alcoholism'."

By second reading, the name had been changed to Alcoholism Research Foundation. No one who participated in the debate mentioned any other role for the new Foundation except treatment. Speakers apparently hoped the ARF would provide alcoholics then put in mental hospitals with more appropriate therapy. The Foundation was viewed as an experiment which, if successful, would be expanded by establishing "these alcoholic hospitals in all the main cities throughout the province" (G. B. Ellis, CCF, Essex North, p. 1706).*

A brief amendment to the original bill was introduced in 1951 to give "the Foundation wider powers for the treatment, research, education and rehabilitation

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* Page references in parentheses in all cases are to the Debates of the Ontario Legislature.

of alcoholics...." The statement by Kelley's successor as Minister of Health, MacKinnon Phillips, suggests that politicians were beginning to be aware of roles that ARF might play other than treatment.

Four years later Phillips introduced a further amendment to enable the Foundation "to teach professional people and the public as much as possible about the illnesses due to alcoholism" (p. 1025). This time second reading occasioned a long, articulate speech by Labour Progressive MLA J. B. Salsberg, who expressed grave concern about the growing social problems associated with increased alcohol consumption. Salsberg advocated heavy emphasis on educational activities to heighten public awareness of the dangers of alcohol abuse. He was also alarmed at the growth in provincial revenues from the sale of alcohol, and stated that the government should aim "to reduce the trade so that our income from the source becomes smaller and smaller by year" (p. 1099). Moreover, Salsberg recommended that a "reasonable portion of that income" should be set aside - presumably in the form of a grant to ARF - "for the most intensive educational program against alcoholism which can be devised in our province." Salsberg clearly regarded the education function as a major aspect of ARF's mission. Neither he nor any other MLA had as yet referred to its research role.

The next amendment (1959) proposed to change the reporting arrangements of ARF, transferring responsibility from the Ministry of Health to the Provincial Secretary. The brief debate dealt only with administrative questions without touching on the role or achievements of the Foundation. The 1961 amendment, expanding the mandate of ARF to include drugs as well as alcohol, occasioned no debate whatsoever. Another minor amendment in 1963 expanded the Medical Advisory Committee by adding "those of other disciplines whose skill and training are required in this work" (p. 670). An amendment in 1964 included the first reference to ARF research in the legislative debates. This amendment permitted ARF to "pay remuneration to members of the medical advisory board whom the commission employs to do certain types of research work" (p. 1168). No debate ensued.

In 1965 the Government brought in a new bill (still in force) consolidating previous amendments and permiting ARF to make external research grants to other organi-

zations. The Act requires the Foundation to make an annual report to the Minister for submission to Cabinet and the Assembly. It also provides for the appointment of the Foundation (i.e., Board) by the Cabinet. These arrangements are the only references in the Act to the relationship between ARF and the government.

In introducing the 1965 bill, Minister of Health M. B. Dymond reviewed the accomplishments of ARF, explaining its important role in research. He also commented at length on the question of public education, which he said aimed at the "basic job of primary prevention - getting at the public health problem before its onset in the individual" (p. 1527). In this speech, Dr. Dymond identified a wide variety of target audiences of ARF's educational efforts, including

1. Employers: "The Foundation is constantly working ... to promote greater interest and understanding on the part of major Ontario employers ... and only a few weeks ago conducted a significant three-day seminar involving personnel, medical directors and senior operating executives from ten large Ontario companies" (p. 1526).
2. Young people: who "must be adequately informed about the effects of alcohol ... [and] against learning to become dependent on such effects." He goes on to explain that "the two most important agents in accomplishing this goal are the school and the home." Hence the need to appeal to other groups involved in socializing youth.
3. Teachers: ARF has prepared an "alcohol studies guide" for the Department of Education and has created "printed materials, motion picture and film strips now widely used in secondary schools across this province." It has also prepared a "comic book."
4. Parents: Because what "parents say and do is the most important single factor determining what young people will do about drinking," ARF has tried to impress this "heavy responsibility" on parents "through press, television, radio, movies, printed materials, and personal contact."
5. Adults: "Advertising in the mass media is becoming an increasingly important part of the Foundation's approach to adult drinkers in Ontario. It is my belief that the facts about alcohol and its effects on people should be much more widely publicized."

6. Helping professions: The Foundation is concerned "with the attitudes and skills of physicians, nurses, social workers, probation officers, magistrates, police, clergymen and others who have a professional responsibility for helping people with serious problems." This goal is accomplished through "lectures ... clinical teaching ... graduate seminars ... annual summer course ..." etc.

Clearly Dr. Dymond valued highly these educational efforts, believing that government has a major responsibility for protecting and informing its citizens. Further, he held that education involved more than making people aware of the facts: it should be coupled with strong prescriptive advice. Thus "massive campaigns will still have to be mounted to impress upon everybody that while drinking in appropriate amounts and on appropriate occasions may be all right, drunkenness is not acceptable at any time, anywhere" (pp. 1527-28). Dr. Dymond commended the style of ARF educational efforts, pointing out that the "foundation deals only in scientifically validated facts and avoids exaggeration and emotional scare tactics."

In his list of appropriate target groups for ARF educational efforts, Dr. Dymond did not refer to civil servants or to politicians themselves. He noted approvingly, however, that a very recent booklet "was placed on every honourable member's desk yesterday." In light of his other remarks, this comment could be interpreted to imply that he supported the idea of ARF's "educating" politicians and senior civil servants. Such education would apparently involve policy recommendation (i.e., prescriptive advice) as well. Yet strong criticisms of this kind of advocacy were voiced during the recent (1978) debate over raising the drinking age. For example, James Foulds (NDP) declared:

> *I have found [the role of ARF] ...somewhat objectionable. It seems to me a questionable role for a government agency when it turns from objective research to advocacy. This is what they did during the course of a provincial election, by sponsoring meetings that were deliberately designed to bring pressure on legislators to raise the drinking age. That is questionable no matter how sincerely held the feelings were of the people who were engaged in that research. (June 8, 1978, p. 3298)*

Foulds goes on to remark on the ironic turnabout ARF seemed to make from its policy "14 or 15 years ago" when they advocated "lowering the drinking age." (In

line with the "integration theory" then in vogue, the director of the St. Clair regional office of ARF recommended lowering the drinking age in 1967. However, this was not official advice from ARF.) He sums up by stating, "I find the role of ARF in all that somewhat questionable" (p. 3296).

The legitimacy of ARF's involvement in policy issues, especially as an advocate, relates closely to the question of the relationship between ARF and the provincial government. The word "agency" implies a very close relationship between ARF and the government. ARF stationery identifies the Foundation as an "agency" of the Province of Ontario. In point of fact the term agency is rather ambiguous, as is the relationship that has evolved between ARF and the province. Only the barest elements of the relationship are explicitly laid down in the 1965 Act (a kind of arrangement typical of Ontario's "semi-independent agencies" - see Silcox, 1975, p. 140). Present working arrangements have developed out of a series of understandings and (occasionally) confrontations.

Summary

The legislative mandate of ARF evolved significantly, reflecting changes from the original conception of the organization as a treatment hospital modeled along AA lines, to the later view of ARF as an organization with interests in a variety of addiction fields and activities involving education and research. The current legislation says little about the formal relationship between ARF and the provincial government. Considerable ambiguity exists concerning the appropriateness of ARF involvement in legislation and policymaking.

Political implications of the role of ARF will be discussed in chapter 18.

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9. Overview of ARF Education Approaches to Alcohol Problems in Ontario*

At its inception, ARF adopted programs with the following objectives:

1. to make the name and nature of the new organization known;
2. to define the problem of alcoholism;
3. to apprise the people of Ontario of its magnitude;
4. to inform the public and the media that the Alcoholism Research Foundation was not a temperance organization opposed to all use of beverage alcohol; nor was it closely aligned with the prohibitionists, the churches, Alcoholics Anonymous, or indeed the alcohol beverage industry.

The major priority was to build credibility by being recognized as an organization generating objective knowledge.

ARF's earliest activities in the area of public and professional education involved publishing a digest of alcoholism issues, initially titled *Alcoholism Research*. It was the forerunner for the quarterly publication *Addictions*, which ended its existence in 1977. A series of radio broadcasts produced in the early 1950s portrayed some of the human issues faced by individuals seeking treatment and discussed some of the dimensions and the scope of the alcohol problem in Ontario. These programs were apparently well received and frequently played on radio stations in Ontario.

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* This summary is based on a report prepared for the Task Force by Mr. R. R. Robinson, Director of Education for the Foundation for the greater part of the 1950s and 1960s. The historical material relating to the 1970s is extracted from the Annual Reports during this period.

The focus of this chapter is limited to education approaches. This is not intended to ignore or downplay the Foundation's other information/communication-related activities. These include numerous task forces, program committees, etc. involving ARF's participation.

Since funds were limited, ARF used free assistance from other organizations. For instance, three films were produced by the National Film Board (*On-the-Spot Alcoholism*, 1954; *Eye Witness Alcohol*, 1955; and *David: Profile of a Problem Drinker*, 1955). The second of these was given theatre distribution by the J. Arthur Rank Organization, and the other two were shown on television and were subsequently on loan for a number of years through public libraries. *David* became a classic and was used throughout North America to illustrate alcoholism's progressive development.

Newspapers and periodicals utilized ARF releases and assigned feature writers to develop special stories. A prominent science writer was awarded a fellowship to attend the Yale School of Alcohol Studies. Selected science writers from large-circulation newspapers were invited to attend the ARF summer schools, which were initiated in 1962 for key individuals concerned with health, social, and education interventions.

The early years' activities included the distribution of various types of ARF educational literature, public addresses, radio talks, and the nucleus of a professional training program via lectures to students in psychiatry, medicine, and nursing. A two-day Institute on Alcoholism in Industry was attended by personnel officers and other executives, public health officials, physicians, nurses, and social workers. Teacher training was also begun with ARF staff participation in a teacher training college and in an Ontario Department of Education Teacher Training Institute.

By 1954 the Foundation's education philosophy began to take shape. The Annual Report stated:

> *Underlying the use of so-called "educational material" is the conviction that it is useless unless it is keyed to the emotional understanding of the audience.... It is our belief that it is ineffectual simply to assemble a bundle of facts and parcel them out in wholesale lots to an indifferent public. To attempt to sell people an idea with the "this is good for you" argument is about as ineffective as trying to sell a three-year-old a plateful of spinach with the same appeal. And attempting to scare people into action with the "this can happen to you" bogey is equally futile....*

> *Facts most certainly are the essential raw material of education... facts not only about the content of the subject but also about the character and disposition of the audience. This being so, thorough-going research is a necessary forerunner and concomitant of any potentially successful educational program....*
>
> *As an instrument of prevention, public education about alcoholism also fulfills a vital role. It can set up guideposts which may serve to direct the susceptible individual away from dependence upon the effects of alcohol; and by casting light on some of the contributing factors, it may lead relatives and employers to improve attitudes which might otherwise contribute to the making of an alcoholic....*

The building of a credible ARF, the thinking in terms of primary and secondary prevention through education, had begun. The main instruments utilized were the print media, film, and face-to-face work with selected groups of influential people in seminars, workshops, and the summer school program. The summer school program was moved from one university locale to another throughout Ontario to provide local focus and stimulate interest among various disciplines in alcoholism research.

Reaching Various Target Groups

Refinement of the target population was an early challenge. The initial breakdown included young people (directly and through their parents and teachers), employers and employees (approached through both management and organized labor), alcoholics and problem drinkers and their families, members of the health professions, members of the clergy, and other related target audiences. The early material reflected information that addressed both the issue of social drinking and those issues that involved alcohol-dependent behavior.

An official Department of Education "Alcohol Studies Guide" was prepared in the early 1960s. Its acceptance by the teaching profession was enhanced by the fact that a committee of experienced and respected teachers advised in its preparation. It was subsequently adopted by several other provinces and by a number of jurisdictions in the United States and beyond. It was seen as the cornerstone of a teacher training program; the Foundation continued to produce teaching material and methods to complement this studies guide.

The secondment of a senior physical and health education teacher to the Foundation (from the Toronto Board of Education) also proved to be a successful innovation in the development of ARF education programs. Other school consultants who were perceived as leaders in their respective fields were subsequently attracted to the Foundation. Their responsibility was to influence their colleagues in the introduction of programs, policies, and alcohol-related materials. Through their efforts the Foundation was able to introduce alcohol studies instruction in all Ontario teacher training colleges and the Ontario College of Education.

Prominent among the teaching materials developed in the second decade of ARF's educational work was the comic book "It's Best To Know." An appreciable departure from the early publications style, it created a controversy. Nevertheless, the target audience perceived it as having high acceptability. Millions of copies were produced. It was eventually used in all Canadian provinces and territories and in the majority of American states, as well as other countries.

Films, filmstrips, and French-language materials were also produced for the school program. Two principles guided development of school materials:

- to teach teachers, wherever possible, rather than supplant them in the classroom;
- to provide teachers with materials and methods not available from any other source.

In order to reach target segments in both the general public and the medical, nursing, and social work professions, ARF mounted undergraduate and graduate training programs, annual meetings, and special conferences in specific health areas. Professional medical and science writers collaborated with therapists in the preparation of materials for the relevant professional journals and for general-audience publications.

Because members of the public had traditionally looked to the clergy for help in matters that related to alcoholism and problem drinking, clergy workshops were initiated in concert with the Canadian Council of Churches. Collaboration has

continued through the years with Alcohol and Drug Concerns, an organization largely supported by clergy and church members in Ontario.

ARF began using paid newspaper advertising in 1962. Earlier trials, such as paying for the back page of the *Globe and Mail* Report on Business to bring the annual summaries in editorial style to the attention of leaders of business, industry, and government, yielded favorable response. Paying for space also meant some measure of control, in contrast to free coverage, in relation to text, illustration, headline, and time and place of appearance.

"Operation Caution," submitted in the fall of 1961 to the special committee of the Ontario Cabinet, was a proposal for a large-scale information campaign about the effects of alcohol. The proposal was never fully funded.

Broadening Prevention Strategies

In February 1965, the Foundation submitted a plan to the Department of Health for the overall management of the problems of alcoholism in their various forms. "As society generally accepts alcoholism and problem drinking in all of its various aspects as a problem of public health, the Government of Ontario at the present time recognizes this in part through the establishment of the Alcoholism and Drug Addiction Research Foundation under the Department of Health" (ARF, 1965, p. 3).

It was suggested that Ontario could take a major step forward if all members of the legislature could endorse a policy statement declaring alcoholism and problem drinking a public health problem requiring for its prevention and control a complete program of research, education, and information, early detection, treatment, and rehabilitation (p. 3). This report outlined the size and nature of the problem in Ontario at that time. The principal goals were to address issues of primary and secondary prevention and to develop a network of treatment facilities.

Primary prevention was identified as fundamentally an educational task. The report indicated that preventive education's main goals are:

- o "greater public understanding of and ability to recognize ways of drinking that are harmful, and
- o a public tendency to consider drunkenness (not drinking) as something not tolerable."

The 1965 report indicated that parents and other adults who may be significant in the lives of young people must reinforce education provided in schools. It called for a considerably expanded program of advertising, publicity, and public education generally.

Specific primary prevention recommendations included the following:

- o In-school education as developed by the Foundation in collaboration with the Ontario Department of Education should be strengthened so that all young people are exposed to it before leaving the school system.
- o Advertising and publicity addressed to adult social drinkers by the Foundation should be greatly increased and should stress the responsibility of adults as models for young people.
- o A radio campaign beamed directly at teen-agers in their language should be launched.
- o The character and content of alcohol beverage advertising in Ontario should be examined in the light of research conducted on a continuing basis by the Foundation.

In July 1969, the Foundation presented to the Minister of Health a paper clarifying future directions for the organization. Entitled "Policy and Planning for a Comprehensive Approach to Problems of Alcoholism in Ontario," it briefly outlined the current objectives of the organization and argued in favor of a new thrust. This report de-emphasized a direct treatment role for ARF and stressed instead that the organization should concentrate on "conducting research and developing effective approaches to treatment and prevention" which would provide models for other organizations. The report provided the basis for the next decade of ARF activity by emphasizing:

the further development of programs of clinical, biological, pharmacological, psychological, social and legal research and investigation into problems of alcohol and drug use, drug dependence and methods of control and prevention;

providing advice and consultation to government and its various departments on the nature and number of programs required in various areas and on ways of improving the quality of treatment, education and prevention.

With the approval of government, this clarified role was adopted by the Foundation and implemented during the next decade, and gradual withdrawal from providing comprehensive treatment services began. At the same time the Foundation began to formulate alcohol control policy recommendations aimed at prevention of alcohol problems. The 1970s saw a refinement of this position derived from a growing body of research and set forth in a series of ARF policy papers and recommendations submitted to government (see chapter 10).

Education Activities in the 1970s

The Foundation gave advice to the Federal Commission of Inquiry into the Non-Medical Use of Drugs dealing with views on changes in legislation, provision of services, and education and other public measures. The Foundation stressed that legislative action concerning non-medical use of drugs should not be based on scientific assessment alone, but that it had to involve value judgments based on current contemporary standards. Judgments would have to consider how much harm from any one substance society is willing to put up with in return for specific benefits.

ARF began to emerge as a major supplier of printed and other educational material; 2,000,000 fact sheets had been distributed by the end of 1969. The 1970s saw a significant growth in the distribution of the latest drug use/abuse scientific and clinical knowledge. ARF perceived its role as selecting and packaging relevant information, making it available to those individuals who need it, and helping them make the most effective use of it. It was also recognized that preventive education could not be left to any single agency or system. Distribution of materials went through the school system, colleges of education, and teacher training colleges.

Local school systems had consultants available as well as a growing number of regional personnel.

Interpersonal telephone communication became important with the establishment of "Connection," a telephone information service which began to log over 3,000 inquiries a month. ("Connection" was the precursor of the present Information Centre.)

Professional development courses were increased to two major events per year. These were in addition to shorter courses involving specialized target audiences such as corrections personnel, nurses, teachers, social service workers, and physicians.

Launched in 1972, *The Journal* (a monthly tabloid newspaper) was designed to reflect the latest alcohol/drug-dependency-related developments in research, treatment, education, law enforcement, and social policy areas. The Library (with one of the largest specialized collections in the world) became a major resource not only for ARF researchers and other staff but also for students and the general public. This year also saw the beginning of a proactive thrust in marketing principles and concepts. The Media Relations office was initiated in 1974 to work vigorously with the press, radio, and television in information dissemination and in the preparation of a growing number of news stories concerning the Foundation's work and activities.

Toward the end of the 1970s, the objectives of the education program underwent modification. Now that a degree of public awareness and communication with health professionals had been achieved, attention shifted to focus on developing more sophisticated understanding of the communications process itself. So that changes in knowledge, attitude, and behavior might be determined, evaluative measures became part of program/project objectives. The development of specific education programs also involved the development of instruments and methodology such that the programs would match the particular needs of specific target groups.

Again, the scientific knowledge base obtained from research at ARF and elsewhere provided the information base for these programs. The end of the decade saw the

development of priorities broken down into content areas, primary and secondary audiences, communication mode, and most effective transmission medium. This systemization was seen as the basis for more proactive, persuasive-type programming for all Ontario target populations.

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10. Recent Development of an Alcohol Policy Strategy for ARF

By the end of the 1960s research had provided a basis for recommendations to government regarding the prevention of alcohol problems through government control measures. In 1973, ARF submitted a comprehensive set of policy recommendations entitled "Proposal for a Comprehensive Health-Oriented Alcohol Control Policy in Ontario." This document warned: "the prevalence of ill health and excess mortality attributed to heavy alcohol consumption continues to rise in Ontario. The evidence indicates that the overall trend towards a more liberal alcohol control policy is an important contributing factor." After drawing Cabinet's attention to the high health costs associated with rising alcohol consumption, it urged revision of policy to prevent further increases:

> *It would seem an inescapable conclusion that, in the present atmosphere of growing acceptance of drinking in Ontario, radical attempts to restrict accessibility to alcohol would carry costs which would outweigh prospective benefits. On the other hand, a health-oriented alcohol control policy could be adopted in principle, and derivative measures, including revisions in pricing, gradually implemented over a five-year period. The objective would be solely to prevent further increases in rates of alcohol problems in the Province. If the process of implementation were supported by a vigorous alcohol education campaign, designed to mobilize the health values of citizens in favor of protective measures, the difficulties involved might be minimized.*

On this premise the Foundation urged the development of alcohol control policies that would at least not increase the present level of alcohol problems in Ontario. It did not advocate prohibition but rather recommended a moratorium on further liberalization.

In February 1978, the ARF Executive Committee submitted a report to government entitled "A Strategy for the Prevention of Alcohol Problems." On the basis of earlier trends, the document concluded:

1. *The overall consumption of alcoholic beverages in a population is an important determinant of the magnitude of alcohol problems. Hence, any control measure which affects the volume of sales of alcoholic beverages may be expected to affect the prevalence of these problems.*

2. *The rates of alcohol sales and attendant health problems have risen steadily during the post-World War II period in Ontario, and in the absence of appropriate preventive action, current indications are that this trend will continue.*

3. *The post-World War II period has been characterized by a gradual relaxation of restrictions on the availability of alcohol, a lowering of the legal drinking age, the rise of extensive life-style advertising of alcoholic beverages, and a decline in the real price of alcohol. These changes appear to have contributed significantly to the increase in consumption over the period.*

The document specifically recommended that:

1. *There should be no further liberalization of alcohol control measures and a health-oriented policy with respect to such measures should be adopted. Essentially, this would mean that future proposals to change legislative or other provisions governing the marketing and distribution of alcoholic beverages would be tested against a health objective: the prevention of further increases in the prevalence of alcohol problems. The relevant question would become: are the proposed changes likely to contribute to higher consumption levels and therefore to an increase in health costs?*

2. *A pricing policy should be adopted by the Government of Ontario such that a reasonably constant relationship is maintained between the price of alcohol and the consumer price index. In addition, the price structure should be adjusted so as to minimize discrepancies in the cost of alcohol obtained through the least expensive beverage in each class: beer, wine and spirits. This would prevent increases in alcohol consumption through a shift to cheaper sources of beverage alcohol; for example, from distilled spirits to beer.*

3. *The legal drinking age should be increased.*

4. *Life-style advertising of alcoholic beverages should be discouraged.*

5. *There should be a vigorous effort to increase public awareness of the personal hazards of heavy alcohol consumption, the economic and other consequences for society of high consumption levels, and the potential public health benefits of appropriate control measures. Many approaches are needed to achieve this objective but there are three which deserve special note in the present context:*

i) The mass media alcohol education program conducted by the Ministry of Health in 1975-76 should be continued and strengthened. A preliminary evaluation of the impact of the program indicates that it had some success in reaching and being understood by its audience. It is unrealistic to expect a significant effect on drinking behavior on a short term basis, especially in the absence of a complementary legal control policy.

ii) The Addiction Research Foundation, through its community development program, will seek to influence private industries and such large institutions in the Province as labour unions, service clubs, military establishments, and universities, to adopt a health-oriented policy with respect to alcohol use. To date, the concern has been mainly to generate interest in assistance programs for those already displaying problems as a consequence of drinking. However, an attempt should be made to encourage large organizations to formulate a more comprehensive policy aiming also at prevention. This may help to forestall current trends towards increasing the availability of alcohol within the jurisdictions of such organizations.

iii) A message indicating the principal long term health hazards of alcohol use should be distributed through the retail outlets of the Liquor Control Board of Ontario. The message should be under the imprimatur of the Ministry of Health and be routinely packaged at every purchase. The content envisaged is indicated by the attached draft: Some Information about Drinking and Health.

The form of this document, the method of its distribution, and public reaction to it* convinced ARF to adopt new directions:

- a higher public profile in providing inputs to policymakers;
- a restriction of such advocacy efforts to a specific group within the Foundation (i.e., the Executive Committee) in order to protect the scientific integrity of the Foundation as a whole and to respond to the strongly held views of some senior researchers that ARF should refrain from offering policy advice and instead concentrate on pure research.

Later that year these steps were formalized in the establishment of a Program Policy Committee composed of the Directors of the Program Divisions, the President, and the Executive Vice-Chairman, supplemented where appropriate by individuals whose special expertise is needed by the Committee.

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* See, for example, The Brewers/ARF File, Special Report, *The Journal*, 8(4),1979. See also chapter 18.

This Committee's terms of reference are:

> *To develop proposals concerning goals and policy in relation to Foundation programming;*
> *To develop advice to the Government of Ontario concerning policy issues related to alcohol and drug problems.*

The Committee is responsible for developing positions on a variety of topics, sometimes at the request of government, sometimes on the initiative of the Committee itself, sometimes to provide a judgment on the advice and recommendations in the reports of task forces established to consider various problems in depth. Recent examples include a Report on Treatment Services for Alcoholics, a Report on Employee Assistance Programming, and a Report on Halfway Houses.

The Committee operates under several safeguards:

- *The Committee speaks only for itself. It advises government and advises the managing officers of the Foundation. Its public statements will be identified as statements of the Committee rather than statements of the Foundation.*
- *The Committee attempts always to distinguish between scientific findings and its value judgments.*
- *The Committee offers advice only when it has a high level of confidence and consensus concerning the public health consequences of its advice.*
- *The Committee makes explicit the public health bias underlying its advice.*
- *The Committee limits itself to advocacy, making clear the facts and the assumptions underlying its position. It will avoid strictly engaging in propaganda - the use of deception or distortion.*
- *The Committee avoids stifling scientific or policy debate. It encourages research the results of which might challenge the advice emanating from the Committee.*
- *The President keeps the Board informed in advance of statements which the Committee proposes to publish.*

REVIEW OF EFFECTIVENESS OF EDUCATION/INFORMATION STRATEGIES

The previous chapter indicated that by the end of the 1970s, there had emerged the basis for a prevention strategy with two prongs:

- to encourage Ontario legislators to adopt alcohol control policies on public health considerations;
- to encourage, through an education program, public support for such policies.

As mentioned in chapter 1, the Task Force's terms of reference required us to consider:

1. whether traditional prevention approaches involving influence attempts aimed directly at the individual's alcohol use were less satisfactory than the combination of control policy with mass persuasion;

2. whether the mass media could play a significant role in modifying attitudes toward hazardous levels of alcohol consumption and hence could foster public support for appropriate control policies.

This section (chapters 11 to 15) examines "the potential of mass educational persuasion" by reviewing the extent to which previous mass education efforts have been effective and the degree to which the media are capable of influencing public attitudes toward social issues. Since relatively little research has involved alcohol and media, we will examine studies of other social problems on the premise that some of the mechanisms of influence are common.

Chapter 11 provides an overview of the variety of approaches to persuasive influence by outlining several models. While some of the models are relatively

simple, some are more complex; some are media/communications oriented; while some deal with individual-to-individual processes, others deal with the impact of social groups. Later chapters will examine the impact of beverage alcohol advertising, television portrayal of alcohol use, media attempts to influence awareness regarding alcohol, and more general effects of the mass media.

11. Methodological Issues in Influence Attempts via Persuasive Communication

Theoretical Models of Persuasive Influence

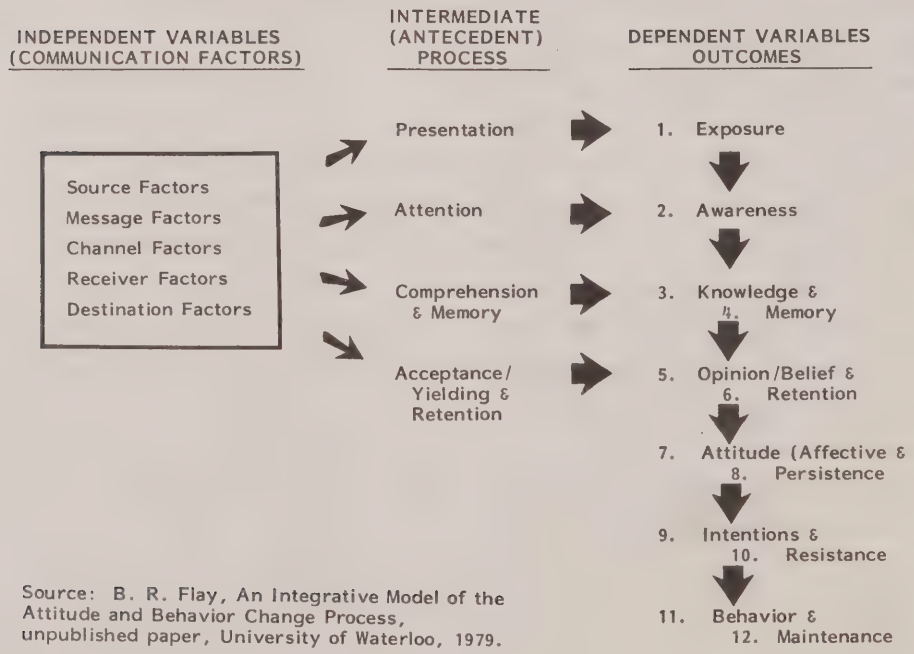
Attempts to influence the behavior of individuals or groups invariably rest on assumptions about the processes of persuasion or influence. Programs of prevention and public education vary in the extent to which these assumptions are made explicit and incorporated into formal models. Before considering the evidence regarding program effectiveness in detail, we need to review briefly the assumptions underlying current influence models. This review will concentrate on models which have on occasion been employed in the field of health promotion.

The historical trend in the development of models of influence has been toward increasing degrees of complexity and comprehensiveness. Communication theorists began with a simplistic "one-step" model (also called the "hypodermic needle" model) which postulated that the mass media had direct, immediate effects on a mass audience (Rogers and Shoemaker, 1971). Based on a misplaced post-war enthusiasm for the power of the emerging electronic media, the hypodermic needle model led to exaggerated expectations of what media could accomplish. It postulated a passive and undifferentiated mass audience which could be manipulated at will by media controllers and politicians. By contrast, a more sophisticated "two-step" model assumed that at least part of the mass audience were active opinion leaders. The mass media would indirectly influence mass attitudes by encouraging the opinion leaders to channel specific messages to others. Later researchers argued that even the two-step model presented too simplistic a picture of the influence process, which they instead regarded as a multi-step process involving a number of variables and phases.

Parallel developments in the field of social psychology led to efforts to understand the linkages between changes in knowledge, attitude, and behavior. Figure 11:1 shows a conceptualization of an information-processing model of attitude change based upon ground-breaking research by Hovland (e.g., 1953) and his successors, expanded here by Flay (1979). This model (in one guise or another) forms the basis for much of contemporary social-psychological theorizing about human communication and identifies independent, intermediate, and dependent variables in the influence process. However, theorists disagree about the relative emphasis each of these three types of variables deserves and about the linkages between communication input, changes of belief or attitude, and behavioral outcomes (e.g., McGuire, 1974; Rokeach, 1979; Becker, 1974; McAlister et al., 1976).

Theories of influence sometimes take a broader perspective, focusing on larger societal groups and how they are influenced by both community and political communicators (e.g., Rice, 1977). Such models will be discussed in chapter 18.

Figure 11:1
A RECONCEPTUALIZATION OF THE INFORMATION-PROCESSING MODEL OF THE GENERAL ATTITUDE CHANGE PROCESS



Source: B. R. Flay, An Integrative Model of the Attitude and Behavior Change Process, unpublished paper, University of Waterloo, 1979.

Data Limitations in the Study of Influence

In addition to differences at the theoretical level, the study of influence (involving both communication and policy) faces various data limitations. Consequently, the attempt to measure the causal links between mass-communication programs or policies, their objectives, and their impact depends greatly on the quality of the data.

Data vary in their origin and form. Some data are epidemiological and demographic, concerned with the characteristics of large groups of people in society. Other data are derived from controlled experimental studies of smaller groups of individuals. Some data may focus on global behavioral indicators (e.g., general involvement with alcohol); other data are concerned with discrete well-defined behaviors (e.g., alcohol consumption at school football games). Data may be obtained from industry sources, from government, or from research conducted by independent agencies or scientists.

Frequently (though not exclusively) associated with their form and origin is a significant variation in the quality, validity and reliability, and interpretability of data. One can ask: How convincing are the data? Have the data been obtained through valid research means? Are the data supported by other data, other researchers? Are the data consistent across time and place? Have the data been analyzed and interpreted appropriately? Are there convincing alternative explanations of the data? All data collection and interpretation have problems specific to the methodologies involved; all possess sources of invalidity.

Two observations are in order regarding the nature of the data related to alcohol policies. First, as with other areas involving significant human behaviors, the data required for making confident statements regarding impact are difficult to obtain, for practical and ethical reasons. Recommendations are frequently based upon correlational, large-sample, demographic data, lacking strict scientific control, since few jurisdictions have seen fit to study systematically the effects of education programs or control policies in an experimentally controlled fashion. This is usually not possible, it is argued, for ethical or political reasons. Unless society is willing to

tolerate carefully controlled experiments in policy formulation and implementation, it must be satisfied with gross demographic aggregate data (which may themselves be of variable quality) and the occasional natural experiment which occurs by happenstance (for example, when a strike curtails availability of alcoholic beverages).

A second point, made by several authors, is that data leading to policies on contemporary issues of prevention such as atherosclerosis and lung cancer seem as adequate as data that in earlier times led to major advances; Arnold and Banta (1977) cite the examples of Jenner's work on smallpox and Snow's on cholera. Lalonde (1974) stated: "Many of Canada's health problems are sufficiently pressing that action has to be taken on them even if all the scientific evidence is not in" (p. 57). The danger, however, of excluding the scientific "ifs and buts" is obvious and causes concern to the scientific community, as Holtzman (1979) has warned:

> *Policy makers and those who seek to influence them often overstate their case. This may be an essential component of salesmanship, but when expectations are not quickly satisfied, oversold programs become objects of scorn and are dismantled or atrophied even when they are capable of modest success. (p. 26)*

These two positions present the dilemma that faces the Foundation in its two roles: as a research organization committed to rigorous scientific inquiry and the generation of knowledge; and as a public health agency committed to the promotion of appropriate public attitudes and policies.

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12. Advertising

Questions of Theory

Interpreting advertising's effects upon the consumer is difficult. The nature of the industry itself, the characteristics of the medium used, the psychology of the consumer, and even the state of the economy are key elements.

Advertising research has created no well-developed underlying theoretical structure from which basic principles are, or might be, drawn. Consequently, the industry has always been in a "borrower" position - taking from established research disciplines the techniques, theories, and processes it needs for a particular project. Influence is not necessarily weakened because of this eclectic approach, but there cannot be said to be an industry-collected, well-developed body of empirical knowledge on how to "sell" the consumer.

How, then, are campaigns and their components created? The evidence (see, e.g., O'Bryan, 1978, for review) suggests that, despite lip-service to the contrary, agencies rely almost exclusively on the experience, preconceptions, and financial restraints that govern the production team. The majority of production houses tend to develop a style which for a time characterizes their campaigns and which often reflects the management decisions of key personnel.

Despite their ignorance or non-use of the potential of theories and research in human behavior, many of the advertising industry's products show exemplary understanding and exploitation of human weaknesses, needs, desires, and fantasies. The combination of experience with a very intense interest in market and sales research provides the production groups with an understanding of human behavior in the real world beyond that available from relatively poorly funded social science

research. Almost all components of a major campaign reflect a concept of human thought-processing and a view of the target group. Therefore, each contains recognizable (often explainable) theoretical principles. Some of these principles are obvious; others are much more obscure, though not necessarily less effective in selling the product. Some are so subtle that even the ad's creator may not be aware of their properties or potential effects. All, however, can have a directing effect which may or may not be discerned by the receiver (viewer, reader, or listener).

Most mass advertising is premised on two key elements - saturation and penetration - which lead to principles of awareness, acceptance, and acquisition of the product or concept being sold. In practice, the three principles most commonly involved are generally referred to as the "Learn (cognitive) - Feel (affective) - Do (conative)" approach. And, indeed, they form the crux of a substantial part of whatever theoretical thinking is done by the industry's leaders. Does the ad itself create the need where none existed? Or does it merely provide a means or a stimulus for existing, untapped, emotion-oriented needs to be brought to the surface and applied in a demand for or buying of the product?

As a general summary, based in part on Ramond (1976) and more recent authors, it would seem that there is little unanimity in the industry regarding the acceptance of any theory of advertising. In most cases, therefore, advertising campaigns tend to be eclectic, and all forms of "theoretical" approach are likely to be found in one or another of the units or elements of the campaign. Of course, a given ad or a given part of the display may well be a close representation of a particular theoretical position, but that position would likely be drawn from outside the specific resources of the advertising theorist.

Effectiveness of Commercial Advertising

A recent monograph on advertising effectiveness (Adler et al., 1977) claimed that most advertising managers believe that no single study can ever answer the question "Does our advertising pay off?" Experience, accumulation of evidence, and the firm's long-term record were considered much more valid indicators of success. These authors argued further that "consumers do not and will not ever respond to

mass persuasion techniques in completely predictable ways" (p. 6), largely because of the methodological problems of controlling the many random factors that influence consumers besides advertising. These conclusions are similar to those drawn by O'Bryan (1978) and are consistent with Ramond's (1976) views derived from his long experience as director of New York's Advertising Research Foundation.

Like so many other aspects of work in alcohol-related and health-related programming in the mass media, compelling research into the effect of advertising on health factors is distinguished primarily by its absence. Although several investigations have been conducted by researchers and others under contract to or supported by various action groups, the results obtained and conclusions reached in health areas not related to alcohol consumption have generally failed to provide specific and convincing descriptions of the effects of commercial advertising on the consumer's mental or physical health (Adler et al., 1977; Choate, 1977; LaMarsh, 1977; Liebert and Schwartzberg, 1977).

Many special action groups such as Action for Children's Television, a number of non-smokers' rights associations, ParticipAction, and others have sought to develop media campaigns of a "pro-social" nature using free air time. Most of these groups claim significant success with counter-advertising techniques; but well-conducted independent research for adequate testing of their claims has been lacking.

Among the special action groups, those concerned with anti-smoking campaigns appear to have achieved some success in using both the media and interpersonal contact to increase awareness of hazards and to reinforce and support the views of anti-smokers. Again, research on the independent effects of components is limited.

Impact of Alcohol Beverage Advertising

The alcohol beverage industry is a very heavy user of advertising, but little is known of the effects of such advertising on the consumer beyond brand preference fluctuations and some correlative data on consumption rates.

A recent study by Atkin and Block (1979) is one of the few well-funded and broadly

executed investigations on the impact of alcohol advertising in the United States. Essentially, Atkin and Block found that the massive quantity of televised beer ads and magazine liquor ads provide ample opportunity for adults and adolescents to be influenced by them. These authors concluded that advertising exerted a strong influence on cognitions concerning brand choice and provided a significant informal source of socialization regarding alcohol and its use, especially among young people. Atkin and Block's data led them to believe that advertisements tend to create favorable impressions of drinkers among viewers and to produce positive attitudes to use of alcohol. As well, the researchers suggest that advertising does have a moderate influence on drinking behavior during both adolescence and adulthood. They argue that consumers tend to believe "dubious" claims made by advertisers and that adolescents are especially vulnerable to glamorous or celebrity images used in alcohol advertising.

Atkin and Block's conclusions provide some support for several key propositions in general advertising practice - that advertising can exert a strong influence on audience cognition of brands, that it can create and reinforce preferences for brands, that it can influence product consumption behavior, and that it can create attitudes and can influence behavior in the context of the product use. Nevertheless, Atkin and Block in this study did not correlate advertising with social or health damage due to alcohol or with per capita consumption.

A Canadian study of influence on per capita consumption by Barnes and Bourgeois (1977), however, found that advertising volume was a very poor predictor of per capita consumption. A 1978 review of the evidence commissioned by the U.S. Brewers' Association concluded that (1) "No scientific evidence exists that beverage alcohol advertising has any significant impact on the rate of alcohol abuse and alcoholism in American society," and (2) "Mass media influences, especially advertising, on human behavior patterns, such as drinking practices, have been grossly exaggerated" (Pittman and Lambert, 1978, pp. 65, 66). Conclusions from research in this controversial area are very difficult to draw because of substantial differences in the terms of reference of the studies.

Conclusion

Those who advertise believe in the ability of the mass media to persuade people to

act. Even though there is very little published research evidence to support these beliefs, society continues to engage in commercial and political advertising, special-interest media programming, and alcohol beverage advertising. There is widespread belief that advertising increases sales.

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13. The Influences of the Mass Media

Since the Second World War, social scientists have devoted considerable attention to studying the effects of mass media on the general public. Nevertheless, the precise nature of these effects and the causal mechanism of influence remain poorly understood.

For example, a survey in 1963 (quoted in Dussuyer, 1979) found that almost 50% of a national sample regarded print news as the most complete medium; this was considerably higher than for either television or radio. In a more recent study (Edelstein, 1974) of capitalist and communist societies, the press was cited as the most useful medium, especially for local problems and for issues which directly concerned the reader such as health-related matters and problems which have great regional variation (such as those associated with alcohol). Although it might be expected that differences in newspaper use would be a function of readers' education, the data do not support this expectation. Edelstein's respondents, regardless of their educational level, were equally likely to report newspapers as the most frequently used source of information; there was even a tendency (not statistically significant) for the less well educated group to report more use of newspapers than the highly educated sample.

More recent data collected by the Television Bureau of Canada (TVB, TV Basic Facts, 1978-79) contradict earlier findings. From its national survey, TVB concluded that television was by far the medium perceived as *most educational, most exciting, most influential, easiest to learn from, most influential on thought and lifestyle, and most factual.* Magazines, newspapers, and radio were consistently below television on all these dimensions.

Their data also reveal the following facts regarding television's pervasiveness:

- 97% of Canadian households contain at least one television set;
- 37% of households contain more than one television set;
- Average daily household viewing for Ontario was estimated at 5 hours 22 minutes per day (Neilsen survey, 1978, reported in TVB 1978-79);
- The top 100 national TV advertisers invested an average of 72% of their advertising budgets in television;
- 84% of Canadian adults, 87% of Canadian teens, and 90% of Canadian children watch television every day (BBM, *Daily Reach*, Spring 1978).

The Character of Television Viewing

North Americans go to the television set for one paramount reason: to be entertained. Because of the formula nature of television programming and the enjoyment expectation of audiences, little substantive content is retained. On recall tests conducted for all forms of television fare, viewers generally perform very badly: they remember overall impressions and feelings but little detail (Comstock et al., 1978) even of news and documentary programs (Epstein, 1973).

Television is a participatory medium. Audiences participate intensely with programming, and are not passive, as is the common belief. However, the participation is not one of critical awareness or intellectual effort. Most of the programming is repetitive in format and characterization, because the audience wish to be entertained, and because they seek out the familiar rather than the unfamiliar. The participation is "passive participation" (Krugman, 1971) not unlike that of dancing, where one loses oneself in familiar rhythms and movements on the floor. One can remain in a room with a TV for four hours at a stretch, without discussion, without being called on to examine critically or skeptically, without being asked to recall, and without ever having to untangle the unfamiliar. As in the above analogy with dancing, the more regular and intense the participation, the less the critical awareness (Nostbakken et al., 1975).

Television is experiential. Through television a child of 10 has experienced more of the world than the man of 75 who has never left his own country but has read about others. The experiences, however, are quite different: the child may not know

about the imports and exports, the capital cities, and rivers of the countries she experiences, but her experience of these countries may be more intense than facts derived from reading could produce.

Like cliches, programs and commercials are very familiar; audiences pay little attention to them and have stopped trying to pry out their meaning (Nostbakken et al., 1975). In a metaphorical and sometimes literal sense, audiences repeatedly watch the same show and see the same commercials. Although they may not be able to recall the details of shows and commercials, it appears that they assimilate this content into their attitudes, beliefs, and values.

Ellul (1968) identifies two kinds of propaganda: "vertical" and "horizontal." Vertical propaganda is advertising. If we keep our wits when watching television, we can step back from commercials and recognize them as propaganda with all their potency and motivational techniques. Horizontal propaganda, on the other hand, is found in the attitudes, beliefs, and values implicitly contained in programming not ostensibly advertising; while they are not directly promoted, they are subtly present nonetheless - attitudes, for example, toward women, sex, ethnic groups, children, religion, health, even alcohol.

Television Portrayal of Alcohol Use

Efforts have been made to document the extent and nature of the portrayal of alcohol use in television. Cafiso et al. (1980), however, conclude in their survey that research directly concerned with the impact of television on alcohol consumption is both scarce and inconclusive. Nevertheless, inferences have been drawn from research into the effect of televised violence on human behavior. Researchers such as Johnson (1976) claim both commercials and programs tend to increase consumption patterns of drugs in general and of alcohol in particular.

Cafiso et al. reviewed studies that content-analyzed the frequency of use and of reference to alcohol and the nature of its context in presentations on television. Several such studies (Johnson, 1976; McEwen and Hanneman, 1974; Smart and Krakowski, 1973; Breed and De Foe, 1978; and Garlington, 1977) indicate a generally

high frequency of alcohol use and reference. Moreover, they point to a much higher frequency in programs than in commercials, although, as expected, alcohol references in commercials were of longer duration than program references.

References to alcohol outnumbered references to all other beverages combined by 1.7 to 1 (Breed and De Foe, 1978) - an exaggeration of real-life situations. The context of portrayal was primarily social, involving "good guys" and emphasizing primarily positive social consequences resulting from use (McEwen and Hanneman, 1974).

Mass Media and Public Awareness

Despite the dominance of television in this "electronic age," other media, especially newspapers, also perform an important function both in conveying information to the public, particularly in-depth material, and in developing and influencing public perceptions of particular social issues.

Wade and Schramm (1969) reported the results of a national survey fielded in 1958 contrasting print media (newspapers and magazines) and television as a source of health information. As a whole, respondents reported getting more information about health from the print media than from TV; only those with a grade school education or less reversed this trend. Wright (1975) reported much the same pattern, as have a good many studies in the communications field (e.g., Torkelson, 1977).

Davis (1952) compared Colorado newspapers' coverage of crime to official statistics and to public perceptions of the crime rate. He found that the amount of crime reported by the media was not related to official statistics, but public perceptions were related to media coverage and not to the official statistics. In order to change public perceptions of an issue, it may therefore be necessary to change newspaper treatment of that issue.

More recently Seachrest (1972) performed a content analysis of local newspapers over a one-year period to compare coverage of crime with public perceptions of the

relative seriousness of various crimes. A significant correlation emerged between the amount of newspaper space devoted to a specific crime and readers' estimates of the frequency and seriousness of that crime. Hartmann and Husband (1974) examined the impact of mass media (television and the press) upon public attitudes regarding another social problem, race relations in Britain. These authors found that the media determined a person's perception of the nature of the problem, while personal experience was more likely to shape an affective response. The mass media became more important sources of information as the opportunity for personal contact with the issue decreased.

Hubbard, Defleur, and Defleur (1975) examined rankings of ten social problems by the public (in a medium-sized American city), by the media (television and local newspapers), and by official agencies such as the police and the courts. Frequency data from the social agencies were compared to the frequency (and nature) of exposure in the media and to residents' concern as measured by a public opinion survey. These rankings are compared below:

Rank	*Public Perception*	*Media Exposure*	*Agency Records*
1.	unemployment	crime	unemployment
2.	juvenile delinquency	transportation disruption	crime
3.	crime	discrimination	alcoholism
4.	drug abuse	unemployment	transportation disruption
5.	alcoholism	drug abuse	juvenile delinquency
6.	transportation disruption	juvenile delinquency	mental illness
7.	mental illness	sexual deviancy	sexual deviancy
8.	sexual deviancy	mental illness	drug abuse
9.	discrimination	suicide	discrimination
10.	suicide	alcoholism	suicide

Analysis reveals that the public's rankings of social problems were significantly and positively related to agency rankings but not to those generated from the media; nor were the media's rankings significantly related to agency rankings. The public seem to have a more accurate view of what constitutes a social problem than do the mass media. Furthermore, the media may not exercise the level of control over public opinion that others have claimed. (Note that alcoholism was the fifth most important problem reported by the public, third in agency rankings, and the least important in terms of media coverage.)

Belson (1957) took advantage of a television series on the treatment of the mentally ill to assess its effects upon public awareness of the issue. People who had seen some or all of the episodes were compared to non-viewers on such dimensions as knowledge of mental illness and feelings about ex-patients. Knowledge of the problem increased, as did the proportion of people who considered mental illness to be a major social problem. While this study demonstrated the ability of a short documentary series to achieve a significant shift in viewers' perceptions, it is possible that the effect was only temporary, since no follow-up studies were conducted in the ensuing months. The results of Baran's (1977) examination of the effect of four half-hour programs dealing with mental retardation confirmed those obtained 20 years earlier by Belson (1957): public attitudes and awareness both improved following the series.

These studies, and others like them, suggest that the mass media may influence attitudes toward and increase public awareness of certain social problems without dominating public opinion. While these findings are consistent with theory and research on the diffusion of innovation, other variables such as media usage, media credibility, and selective exposure have not been simultaneously investigated. It may be that the media have been unrealistically expected to have a uniformly powerful effect upon diverse attitudes, when the media are, in reality, highly selective in terms of the issues they present to an audience. A content analysis of major metropolitan newspapers in the U.S., for example, revealed that only 8% of total news space was devoted to social problems, of which over one-third was accounted for by crime and the law. Health accounted for only 17% (of the 8% devoted to social problems), and drug abuse garnered less than 1%. These

percentages may explain the public's preoccupation with crime, at the expense of other, less dramatic, less episodic, and more pervasive problems.

At present it is impossible to say whether the media are responsible for the hierarchies of importance maintained by the public, or whether public attitudes influence media content. A third possibility also exists: that both influence each other in complex, interactive ways. A great deal of research over the past few years has grappled with this "agenda-setting" hypothesis in an attempt to understand these relationships.

The failure of some studies in the 1950s and 1960s to demonstrate attitude change as a function of media content has led researchers to suggest a more modest hypothesis, namely, that the media provide the topics which confront the public and also provide information as to their importance.

McLeod (1965) took advantage of a natural experiment during the 1964 U.S. presidential campaign in which two newspapers devoted radically different amounts of news space to two issues: nuclear proliferation and the federal budget. He found that readers of the newspaper that stressed one issue ranked that issue as of higher priority than did others even after he controlled for the obvious confounding of political affiliation. However, other factors such as selective exposure could have accounted for the effect: readers with initial preferences may have selectively attended to certain news items, or certain papers.

McCombs and Shaw (1972), in a better-controlled study, tested the agenda-setting hypothesis again in the presidential campaign in 1968. They content-analyzed television, newspapers, and magazines. Items relating to the issues of the campaign were quantified and correlated with the opinions of a sample of voters who were, at the time of interviewing, undecided about the direction of their vote. Using an index of major news items across all media, the authors found an overwhelming significant positive correlation (0.96) between media emphasis and public judgments of issue importance. Correlations between public perceptions and the content of any single medium were substantially lower. There was, in addition, great variation between subgroups of voters: the opinions of respondents who used the media a

great deal and who were uncertain about the issues and/or candidates were more likely to be related to media content.

A more ambitious examination of the agenda-setting hypothesis was undertaken by Funkhouser (1973), who correlated media coverage with public rankings of importance of the top 15 issues facing the nation during the latter part of the 1960s. Unfortunately, health concerns (with the exception of smoking) were not included, and so no estimate is available of media influence over health topics. Results, however, did support the agenda-setting hypothesis. He summarized his study as follows: "Data cited here suggest that the amount of media attention given to an issue strongly influences its visibility to the public." However, as McLeod, Becker, and Byrnes (1974) have pointed out, merely correlating the two is only the first step; we need to establish that one preceded, and determined, the other.

The same problem is associated with Kline's (1973) exploration of national issues facing the country at the time of the 1972 U.S. presidential election. Once again, media coverage correlated with public perceptions, but the causal relationship could not be established in the absence of an adequate experimental design.

The most rigorous examination of the agenda-setting hypothesis was carried out by McLeod, Becker, and Byrnes (1974), who analyzed data from readers of two newspapers at two different times during the 1972 U.S. presidential election. As with much of the previously discussed research, the concern was with political issues. The issue to which the media devoted most attention was honesty in government, while the public ranked this as of only average importance. The authors were able, through their design and analysis, to test the sequence of change in media emphasis and public concern. Given results contrasting with previous research, the authors concluded: "Our results provide a strong warning against the uncritical acceptance of agenda-setting as a broad and unqualified media effect." The agenda-setting hypothesis was supported only under certain circumscribed conditions: only adults in their 20s followed the predicted pattern, and even then the media influenced only people who were least interested and who considered the newspapers studied their predominant source of political news. McLeod et al. suggest this as a general mechanism for a modified agenda-setting hypothesis - that

each medium will influence only those members of the public who consider it their primary information source.

Research since this study has generally confirmed McLeod et al.'s conclusions. Kaid, Hale, and Williams (1977) investigated treatments of a specific political event by several media and their subsequent effect upon the public. The agenda-setting hypothesis was supported by the correlation for only those respondents who cited multiple news sources; once again the influence of the media was restricted to a subpopulation of the total sample. In accord with McLeod et al.'s prediction, media impact was more significant when analyses focused on subjects' most frequently used sources.

Williams and Larsen (1977), in a study in a small one-newspaper city, compared public and media (radio, television, and newspaper) rankings of both local and national issues. These authors found support for the agenda-setting notion, but once again only in specific circumstances: media rankings were related to public perceptions of local issues only and the newspaper was primarily responsible for the effect.

In a longitudinal analysis in a similar setting, Sohn (1976) found little evidence to support the agenda-setting hypothesis. The only significant correlation was between newspaper content in July and newspaper content in April, indicating that the paper was covering the same kinds of issues over time. Similar conclusions were reached by Tipton, Haney, and Basehard (1977) when they investigated the role of the media in the formation of public agendas during city and state elections in the U.S.

It appears, then, from the above studies that the influence of the media on the formation of public agendas requires careful assessment. Research in this area is difficult to conduct; results are frequently open to alternative interpretation. Existing evidence suggests some relationships between media content and public perceptions of the importance of issues; the degree and nature of this influence is not, however, clearly understood at the present time. Data suggest that under some circumstances (e.g., public uncertainty) for some subgroups (e.g., adults in their 20s), for some media (e.g., newspapers), and for some issues (e.g., local issues), the

media may significantly influence public perceptions of issues. Nevertheless, numerous groups have attempted to use the mass media to influence public awareness of alcohol issues and related health concerns.

Impact of Mass Media on Other Health Areas

With very few exceptions, the public health mass-persuasion campaigns have been poorly funded in comparison with the large sums spent annually on what Shattuck (1978) has called "unhealth" persuasion. Furthermore, almost all of those programs failed to achieve the basic saturation and penetration levels necessary to meet the key success criteria of commercial advertising and network programming. Even those projects which did reach a substantial number of clients tended to be one- or two-shot affairs with limited exposure and little repetition, and were multi-media in name rather than substance.

A useful example of a program which did receive national exposure in the United States and secured what, at first glance, seems to be a large audience - more than one million - was Children's Television Workshop's "Feelin' Good." "Feelin' Good" was based upon state-of-the-art formative research in its production phase and had a great many expert consultants for its content, production style, audience targeting, and summative evaluation. By television industry standards and in terms of its scientific credibility, it seemed a certain success, both as a mass-audience production and as a model for behavioral change. Yet if failed to achieve its most significant objectives. It did not gain a mass audience - one million viewers in the U.S. is network failure. It did not capture the imagination of the public, and it failed to sell its behavioral message. Yet it was not underfunded: more than six million dollars was spent on it. It had excellent summative research conducted on a nationwide sample, and it had very good non-broadcast support systems in print and through the curriculum and facilities of the schools. Its researchers (Mielke and Swinehart, 1976) claimed that it was partially successful in motivating its viewers to seek further information and to encourage others to take appropriate preventive health actions.

The interpretation of the "Feelin' Good" research results is important, for it was one

of the very few health-oriented projects in mass public persuasion which matched commercial-level funding in all aspects of its development and levels of production and distribution, as well as utilizing highly competent research. It may be speculated that the reason that "Feelin' Good" did not succeed in bringing about widespread measurable behavioral change was as much a failure of its promotion and its entertainment/attention-getting characteristics as it was a failure of content or structure. It would be inadvisable, however, to assume that because "Feelin' Good" did not bring about a mass change in its public that the principle of using the mass media is negated. Indeed, Atkin (1978), in a review of research on mass-media health campaigns, considered that at least "modest" influence on the health orientations of the audience is possible. In reviewing more than a hundred studies on health promotion issues, Atkin reported the same conclusion as did Blane and Hewitt (1977): that gains in knowledge and changes in attitude occur, but these rarely result in direct behavioral outcomes. Similar findings emerge from research on mass-persuasion programs as diverse in their topics as safe driving, drugs, smoking, general health, and nutrition; in all cases such programs suffered from limitations of data, shortage of research funds, lack of controls, and limited saturation and penetration. Atkin suggests that new initiatives could be more successful if appropriate attention were paid to impact of source and message, frequency of message delivery, competing communications, nature of appeal, style, impact of channel and receiver, and type of effect expected.

In an interpretation of communications research and summative research in information campaigns, Mendelsohn (1973) took a generally positive view of the prospects of bringing about "consequential attitude change." He pointed out, however, that very few practitioners of mass communications had employed empirically grounded mass-communications techniques. "Communicators and evaluators," he wrote, "inhabit worlds quite literally apart." The implication of Mendelsohn's view is that judgments made about the effectiveness of previous mass-persuasion public health programs may be doubly confounded. On the one hand the programs themselves may have been developed and presented without regard to basic communication strategies, while on the other hand the research has been conducted on the assumption that the strategies were (or should have been) employed. At best there is, in Mendelsohn's view, an absence of synergy and at worst a situation in which the

program in theory is unlikely to work and in practice cannot be shown to have worked. To overcome the lack of integration between communication theorist and practitioner, Mendelsohn suggested the creation of a "physical and social environment which is shared by writers, producers, film makers, editors and directors as well as social science researchers" (p. 52). Mendelsohn took the view that most programs thus far (i.e., 1973) created and researched in the mass-persuasion public health field had not been designed with careful attention to communication strategy, had been expected to achieve results far beyond their capacity to deliver, and had been inadequately researched.

Other reviews of health-related areas have arrived at similar negative assessments of mass-media education programs (e.g., Gatherer et al., 1979), coupled with a cautious optimism concerning the potential of future efforts (e.g., Fishbein, 1977; Lau et al., 1978). Atkin (1978), as another example, makes a similar point in reviewing mass-media health campaigns: "mass media campaigns can be modestly successful under certain conditions. The key issues are how to define success and how to identify the maximizing conditions."

A RAND study conducted by Lau et al. (1978) provides a review of the evaluation of televised health campaigns. In a thorough examination of evidence, they maintain there have been only a handful of studies evaluating health campaigns in the mass media that have used adequate experimental designs. They conclude that the evidence for any measurable or positive effect of health communication in the media is far from overwhelming. Most of these campaigns have suffered from very low exposure; the health message either is delivered as a public service announcement on commercial television (seldom during prime-time viewing hours) or is a special program on educational channels; and expectations for them have been unrealistically high: "no one in marketing expects an advertising campaign to result in huge shifts in buying patterns" (Bauer, 1964).

The overwhelming evidence of the research literature leads to the conclusion that health-oriented mass-persuasion programs have not succeeded in demonstrating lasting behavioral change. It is unlikely that this situation will be different in the future.

Two recent programs developed for the cardiovascular health area offer promise (Farquhar et al., 1977; Puska et al., 1979a). Both of these programs cite knowledge and behavior improvements in their experimental groups in comparison to control groups. They emphasize the importance of community participation in combination with the reinforcing context established through the media. By and large, the methodology employed to evaluate these programs was adequate. Two questions arise: (1) On what principles was their success based? (2) How easily can these findings be generalized into the alcohol/drug domain?

The Stanford Heart Disease Prevention Project has been reported by Maccoby and Farquhar (1975), Maccoby (1976), Milburn (1979), and Farquhar et al. (1977). The objectives of this program were to create and evaluate methods of achieving changes in smoking, exercise, and diet which would be cost-effective and widely applicable to the general public. A control community and two experimental communities were chosen. One experimental community received a mass-media treatment only; the other received the same mass-media treatment combined with intensive face-to-face instruction for a portion of subjects in the sample who were identified as at high risk of cardiovascular disease; the high-risk subjects were assigned randomly to either a face-to-face or a media-only group, in order to incorporate a high-risk control group into the design.

After two years of the campaign, results showed that, compared to the control community, both mass media alone and mass media plus face-to-face instruction significantly improved knowledge of risk factors, reported saturated fat intake, reported number of cigarettes smoked per day, plasma-cholesterol, systolic blood-pressure, and a composite risk index, but had no effect on relative body weight. The impact of the face-to-face instruction was not uniformly superior: firstly, the personalized approach with high-risk subjects had a beneficial effect only on knowledge and reported smoking; secondly, although the face-to-face instruction resulted in a greater decrease in the risk index after the first year, by the end of the second year the media-only groups closely approximated this level of improvement - an effect found when analysis was conducted on data either for all subjects or for high-risk subjects considered separately.

The North Karelia Project in Finland is reported in Puska et al. (1976), Puska et al. (1979a), and Tuomilehto et al. (1978). The objectives of this program are very similar to those of the Stanford program - namely, the reduction of known cardiovascular risk factors, with special emphasis on attempts to influence smoking. As with the Stanford program, high-risk subjects were targeted for face-to-face instruction on smoking, and a mass-media "context" for the project was established in Karelia County using locally available media. Results at the time of the interim evaluation showed that between 1972 and 1977 there was a reduction of 17% and 22% in smoking among males and females respectively, compared to a 13% reduction in a comparison community. Serum cholesterol and systolic and diastolic blood-pressure among males also appeared to improve. A composite index of coronary heart disease risk showed improvement in North Karelia for all sex/age groups. There were also indications, without the benefit of data from a comparison community, that cardiovascular disease morbidity and total mortality decreased.

An extension of the smoking-cessation TV campaign to the entire Finnish population (Puska et al., 1979b; McAlister et al., 1980) resulted in several favorable, although not statistically significant, trends. The only statistically significant national changes were (1) a reduction in the percentage of women smoking 20 cigarettes or more per day (from 20.8% to 14.5%) and (2) a reduction in the percentage of males who considered themselves to be "moderate" smokers (from 29.2% to 24.4%). An examination of the additional impact of intensification of community activities in North Karelia compared to a reference community showed no significant differences in successful smoking cessation, although viewing and participation were twice as great in North Karelia.

Wallack (1979) reported on the California (Alcohol) Prevention Program, which was superficially based upon the Stanford Heart Disease Prevention Project in that a study was made of three locations which received mass-media campaign material regarding alcohol, *or* mass-media material plus community organization efforts to raise awareness, *or* acted as no-treatment control. Although campaign awareness and recall showed an effect, "large effects attributable to the prevention demonstration regarding increases in community concern about alcohol-related problems, increases in knowledge, or changes in attitudes were not apparent" (Wallack, 1979,

p. vi). Closer scrutiny reveals that the California alcohol program was similar to the Stanford program only in differentially employing mass media and some community action in three communities. It failed to follow the essential principles of the Stanford project (see, for example, McAlister et al., 1976; Hochheimer, 1979) with respect to specificity of behavioral objectives and the integration of social learning theory into the development and implementation of the program. Similarly disappointing results appear to have been experienced in the early phases of the Florida mass-media/community alcohol education program (King and Thompson, 1979a, 1979b; personal communication, 1980).

Impact of Mass-Media Alcohol Awareness Programs

Blane and Hewitt (1977) have also reviewed education programs in the alcohol and related health fields. According to their definition "public education" refers to mass media directed toward populations rather than individuals. They studied programs ranging from the National Highway Traffic Safety Administration programs on drinking/driving to Canada Health and Welfare's "Dialogue on Drinking," and compared goals, target audiences, themes, media used, and other program characteristics. Blane and Hewitt summarize program types and content as follows:

> *Public education programs utilizing the mass media which are designed to reduce alcohol-related problems are conducted by a variety of governmental and private agencies. The broad goals of these programs are to influence knowledge, to change attitudes, and to change behavior where specific goals include the promotion of moderate alcohol use, reduction of drinking and driving and its consequences, and public awareness of alcohol as a social problem. Programs are commonly targeted at the general public or at such sub-groups as social drinkers or drivers. Public education programs disseminate their messages in all types of media, but radio and television are used primarily for government-sponsored nationwide campaigns. Programs have not been able to achieve extensive geographic coverage, frequent target audience exposure, or appropriate timing of messages....(p. 4)*

One technique described by Blane and Hewitt is the use of celebrities, generally reformed alcoholics, as the source of messages. Little evidence is available to support the view that the use of celebrities is an effective strategy in health-oriented counter-advertising. However, recent experimental laboratory research by Atkin and Block (1979) showed that the use of youthful celebrity sports figures

increased the perceived credibility of characters in alcohol advertising.

Blane and Hewitt's (1977) review included a 1973 Christmas drinking/driving campaign operated collaboratively by ARF and the Ontario Ministry of Transportation and Communications (MOTC) (Pierce et al., 1975). This study examined the impact of the campaign in nine experimental communities compared to nine matched control towns. The emphasis of the campaign was citizen involvement in dealing with drinking/driving and the use of alternative means of transportation. The principal medium was the radio, although some towns were successful in marshaling other community activities. From pre- and post-program random telephone surveys the following positive effects emerged:

- o a significant increase in the number of persons in the experimental towns who reported not driving after drinking too much;
- o a greater reported number of conversations about drinking and driving;
- o a greater awareness of the legal blood-alcohol-level limits and of the legal consequences of drinking and driving.

Another alcohol education program has been conducted by the Ontario Ministry of Health. Goodstadt (1977) undertook an evaluation of the reported exposure and initial impact of the 1975/76 phase of the campaign. From the results of a province-wide Gallup Poll it was concluded that the campaign was moderately successful in reaching its audience (i.e., the people of Ontario) with its major theme, "You are your own liquor control board," and that the message was adequately understood by the majority of respondents. It was, however, demonstrated that respondents were generally unable to recall the detailed content of the program; its impact, therefore, appears to have been limited. Nevertheless, more extensive analysis revealed some encouraging results, including an apparent success in reaching young males.

Market Facts (1977) evaluated audience awareness of and reactions to a second phase of the Ontario program undertaken in 1976. A series of three telephone interviews conducted over this phase of the program yielded results similar to those of the earlier study (Goodstadt, 1977):

- Roughly half of the respondents were aware of any TV and radio advertising regarding the effects of drinking.
- Fewer respondents could recall public transit ads and billboard/poster messages.
- Specific questioning about slogans showed that one-fifth of all respondents at the time of the third survey were able to recall (unaided) the campaign's slogan; total recall (i.e., aided plus unaided recall) reached 87%.
- While there were no alcohol-related attitudinal changes between the three series of surveys, between the first and the third surveys there were small differences in recall measures (+4% for unaided recall; +6% for aided recall).
- About one-quarter of the respondents were aware that the advertising originated with the government of Ontario. About three-quarters of these could, by the time of the third series of the survey, correctly interpret the campaign's message.

A third phase of the Ministry program was undertaken in 1978/79. Two Gallup Polls again permitted some assessment of the reach and impact of the campaign. Results of this evaluation showed:

- General awareness of advertising concerning the possible effects of drinking increased from 63% to 75%, which was an improvement over the second phase of the program (i.e., from 50% to 60%). Most awareness related to television material.
- There was an increase in recall of alcohol advertising content, increased awareness of which could be attributed to the Ministry's campaign (from 17% to 31%).
- Unaided recall of the campaign's slogan changed from an initial 5% to 16% by the end of this phase; these figures indicate little or no increase in slogan awareness compared to prior phases (i.e., 9% and 20% in the first phase and second phase respectively).
- Total (i.e., aided plus unaided) recall of the campaign's slogan reached 85% by the end of this phase; this was no greater than the 87% achieved

by the end of the second phase. As with the first phase (Goodstadt), there was evidence that this third phase was more successful in reaching heavier drinkers.

The outcome of the three phases, as measured by the three awareness studies, suggests small effects of the campaign judged by general awareness of messages concerning the possible consequences of drinking. Unaided recall of the campaign's slogan, however, was not substantial and did not appear to be cumulative. Reasons for this are not clear at the present time. One possibility, in the absence of more detailed information concerning the operation of the program, is that media intensity was too low to create a strong cumulative effect (Goodstadt, 1977). In any case, the program then entered a new era with a different message theme.

The 1979/80 Ontario campaign stressed that responsibility for moderation and therefore health rests with the individual. The campaign supported saying "no" in social settings where drinking is often portrayed as a commonplace activity; using the theme "You call the shots," it presented images of moderation in everyday life. It avoided portraying the negative consequences of overindulgence. The new campaign was run in its first phase, in all 14 television and transit markets (plus Toronto outdoors), for a 13-week period beginning mid-October 1979; its scheduling at the end of the year was planned to counter the heavy alcoholic beverage lifestyle advertising that appears at that period.

A province-wide Gallup survey, conducted immediately following the 13-week exposure period, assessed public awareness. Although the campaign did not achieve an awareness level as high as the 1978/79 "You are your own liquor control board" effort, it proved far more effective in delivering moderation messages to its target audience. Because awareness levels were relatively higher among younger drinkers and among heavier drinkers, the strong lifestyle orientation of the campaign appeared to have worked. In one major respect the campaign was not as successful as intended: even more people than in the previous campaign misidentified the sponsor as the LCBO rather than the Ministry of Health. The "rightness" of personal decision-making about how much to drink is seen as a feature of self-responsibility but not necessarily as health-related.

Problems in Assessing Program Impact

In reviewing the effectiveness of such programs, Blane and Hewitt also drew attention to many methodological weaknesses of studies conducted. Studies have lacked control data, and therefore appropriate statistical analyses have not been possible.

In assessing the impact of the Ontario program, Goodstadt (1977) had compared the results of the first phase to those from similar projects in Saskatchewan (Whitehead, 1975, 1976) and Manitoba (Bouchard and Raffer, 1975), the Ontario ARF-MOTC drinking/driving program (Lonero, 1974), and the Alcohol Advertising Campaign of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) (Harris, 1974). This comparison demonstrated that the 1975/76 Ontario campaign performed as well as or better than similar efforts elsewhere. Whitehead (1979), however, reexamined the same data and concluded:

> *It is difficult to find anyone who is not in favor of public education about one thing or another and this is especially true relative to alcohol and other drug education. It's an apple pie issue. Since it does not appear to be very effective, it is not likely to be cost effective. The hope and the promise for primary prevention lie not in vague notions of responsible drinking and wide choices by individuals. They lie in public policy that controls availability in line with societal goals and objectives. (p. 88)*

The basis for this argument lay in comparisons between recall of genuine campaign messages and of fictitious messages. Goodstadt (1977) had previously argued from these data that there appeared to be a real awareness of the campaign; Whitehead argues that the incremental awareness (as measured against the fictitious message recall) was negligible. Further examination of the data, however, reveals that, whereas Whitehead's general policy conclusions may be correct, they are not adequately supported by the data cited. A more appropriate analysis - of the increased awareness as a proportion of the maximum possible change - suggests that the various campaigns were moderately successful, at least in reaching their audiences.

A more important criticism of these campaigns is that most public education media programs have failed to define objectives in sufficient detail at any level (cognitive,

affective, or behavioral). This failure inevitably leads to an inability to develop and target programs adequately or evaluate their effectiveness. It is a telling statistic that most evaluations have not progressed beyond the assessment of program reach and awareness. In the few instances where evaluation has explored the relationships between attitude change and behavior change, little significant impact has been demonstrated.

Staulcup et al. (1979) have recently reviewed 21 alcohol prevention programs (not necessarily mass-media-based), funded by NIAAA between 1974 and 1978. In spite of considerable effort, data were obtained from only 16 of the projects, of which 12 were exclusively concerned with primary prevention and four were concerned with both primary and secondary prevention. Most of these programs took a "socialization theory" rather than a control theory approach to alcohol problem prevention. Thus their predominant objective was "to develop responsible decision-making about the use or non-use of alcohol." The majority of reviewed projects, implemented in a community setting, emphasized improved information about alcohol and its effects: "the underlying assumption was that increasing knowledge and fostering responsible attitudes about alcohol would obviate problems of misuse" (p. 949). "None of the projects used a true experimental group design" (p. 950); five projects employed a quasi-experimental alternative design; two, a non-experimental design; five, no evaluation design; and from nine, insufficient information was available to classify experimental design. Outcome determination was not possible, because of lack of information, for nine of the 16 projects; of the seven programs that could be evaluated, five reported positive outcomes and two negative outcomes. In view of these methodological limitations, the authors concluded:

> *None of the projects offering alcohol education clearly demonstrated a link between knowledge or attitude change and subsequent drinking behavior, a crucial point to be considered in future prevention programming. If it is demonstrated that alcohol education has no deterrent effect on drinking, or perhaps even stimulates use, as suggested in Stuart's and Jaffe's studies on illicit drug education, alternatives to alcohol education must be examined.*
>
> *Despite the problems of these pioneering efforts, the NIAAA projects have demonstrated that people are receptive to prevention activities, that attitudes and knowledge about alcohol are subject to change and that prevention efforts often complement treatment services and strengthen the total effort to reduce the problems of alcohol misuse and alcoholism.*

The authors further recommended that much attention be paid to methodological issues in assessing future programs and deciding on funding for proposals.

Impact of Other Agencies' Programs

In order to assist the work of the Task Force, other Canadian health-related agencies and concerned groups provided information on their own education/information programs. A brief overview of their activities follows, particularly focusing on their use of media.

ParticipAction

ParticipAction is an organization whose structure is independent of government, although it receives a substantial federal government grant to support its operating costs. According to its literature it received additional assistance from provincial government sources, public and private volunteer agencies, business, media, and the public at large.

ParticipAction's earliest efforts were directed toward the production and airing of a number of 30-second commercials as public service announcements amounting to an estimated $3 million of free time. Typical ParticipAction commercials are "The Sixty Year Old Swede and the Thirty Year Old Canadian," "Jog to the Back of the Bus," "Walk a Block a Day," and "Great Moments in Canadian Sport." Also aired was a national TV special, "The Shape of the Nation."

ParticipAction provides fitness posters, transit cards, kits, booklets, films, T-shirts, buttons, and window stickers.

As with almost every other initiative in mass education in the health field, ParticipAction's results are clouded by multiple competing and cooperating variables. The enormous rise in walking, jogging, running, bicycling, and such games as tennis, squash, and racquetball are almost coincidental with the creation of ParticipAction.

Research commissioned by ParticipAction is reported to have shown that the organization is well known in Canada and that its aims and objectives are recognized by a currently significant and growing number of Canadians. The organization does not claim to have data showing marked increases in physical fitness. However, it may have been a catalyst in getting Canadians thinking about fitness and, combining with other trends in North American life, in making the transition from thought to action.

ParticipAction does have substantial awareness and recognition data on its public service announcements, and it reports a strong demand for its other products. Currently, a new national study is being undertaken in an attempt to establish a link between awareness of ParticipAction's objectives and the personal application of them.

Seat Belt Studies

The key work in the research of mass-education efforts promoting seat belt wearing has been conducted by Robertson (1974, 1976) and his collaborators, who examined six public service announcements presented on cable TV. The authors were not able to find any indication of behavioral change in post-presentation observations of driver behavior.

Nader, in *Unsafe at Any Speed*, reported that "the effort of the Ford Car Company to 'sell safety', including the use of seat belts, had ended in failure and resulted in significant financial loss to the company."

Atkin (1976), in his overview of research evidence on mass-media health communication campaigns, concluded that direct and intrusive prods to belt-buckling such as buzzers, refusals to start, and flashing lights had failed.

A research review carried out by Petelycky and O'Bryan (1977) for the Ontario Educational Communications Authority reached conclusions similar to those of Shattuck (1978). It was clear that safety-promotion agencies throughout the world had engaged in fairly extensive mass-media campaigns - ranging from severe

shock/fear messages featuring disastrous consequences for the non-wearer, through symbolic representations of the same principle (the "crushed pumpkin" approach), to soft-sell "intellectual" messages focusing on costs, insurance, and family disruptions resulting from injuries which might have been avoided. Results were by and large not impressive.

Several countries (for example, Australia and Canada) spent ten or more years experimenting with voluntary seat belt exhortation before adopting legislation. The Australian experience, in which heavy fines were imposed and the legislation rigorously enforced, has indicated that very close to 100% compliance can be obtained. Ontario, which provided similar legislation but with much less vigorous application, does not appear to have achieved the same level of success in compliance. Both jurisdictions encountered some early opposition, which was surprisingly lightweight and idiosyncratic. In Australia almost no opposition is now apparent. According to the Australian transportation authorities "spectacular" results in the reduction of injury and death rates have reinforced public acceptance of compulsory legislation. Shattuck (1978) implies that this type of reaction is the result of long-term preconditioning of the public to believe that, basically, seat belt wearing is "good." The implication is that the continuing educative efforts failed to change behavior but provided the climate within which a legislative change could be effected and be accepted by all but a highly individualistic minority - despite the fact that the vast majority were not at first in support of the law.

Canadian Cancer Society

The Canadian Cancer Society was founded in 1938 by doctors and health workers who were concerned that too many people were seeking medical attention for cancer that had developed to an advanced, incurable stage. Doctors were convinced that early detection of cancer would improve the probability of effective control or cure. However, although the Society was begun as a public education organization, it really did not take that role seriously until around 1970. The Society's public education program is based on an overall theoretical principle that each medium and each educational approach have particular strengths and weaknesses for effecting certain kinds of changes. The Society does not pin all of its hopes on the use of the

mass media, or on its school programs alone, or on any single intervention strategy.

The Society adopts the position that at least three basic steps are necessary to bring about change in behavior: (1) creating or changing perceptions (beliefs, attitudes, values, feelings); (2) utilizing motivational forces; (3) providing for the decision to act (Griffiths, 1957; Fishbein, 1977). Based on reviews of mass-media literature and findings of research and surveys conducted by the Society, the position has been adopted that: (1) the strength of mass-media methods is in creating and changing perceptions; (2) group methods such as clinics, community meetings, conventions, forums, and therapy sessions serve well to motivate; and (3) individual face-to-face methods are often needed for, and are most effective in providing for, the decision to act (Griffiths, 1957; Torkelson, 1977). An attempt is made to use the three change methods together in a supportive fashion. It is recognized that a strong mass-media program is not meant to take the place of personal contact in schools, community groups, seminars, or the doctor's office.

The Society depends on volunteers for planning, developing, and delivering its programs. The volunteer nature of the Society is both its strength and weakness. The strength is that it can draw upon a wide variety of expertise and skill. Through volunteers, it is able to reach into all sectors of society at the delivery stage of programs. In short, the Society receives millions of dollars worth of human support in a given year. Because it is a volunteer organization, it gets free time and space in the mass media that it would not otherwise be able to afford. (The problem of not being able to control the time and place of media exposure is well recognized, however.) Some of the weaknesses of the volunteer nature of the Society relate to the difficulty of ensuring reliability of efforts made at the community level on its behalf. Large-scale recruiting and training programs have therefore had to be developed to ensure as far as possible the quality of work being done at all levels of the Society.

The public education program operates on a five-year plan with stated objectives, expected outcomes, identified target audiences, designated materials and programs, identified means of access to target audiences, recruiting and training programs, and evaluation and monitoring.

Mass-media programs operate on a two-year cycle. Thus, for the two-year period 1978-1980, the mass-media theme was "Personal Responsibility for the Prevention of Cancer" (lung, skin, cervix). Mass media used are radio, television, newspapers, billboards, car cards, posters, pamphlets, and so on. Professional staff are hired, full-time and part-time, to work with media personnel and the public in getting messages spread as widely and densely as possible.

The Society conducts periodic national surveys on the knowledge, attitudes, and opinions of Canadians about cancer. On the basis of these surveys, there is some indication of progress being made. Although it is not possible to link behavior and attitude change directly to specific elements of the public education program, it is possible that without the program the changes that do occur would be less likely.

The 1977 survey indicated direct relationship between levels of pessimism about the treatability and curability of cancer and a lack of knowledge about prevention, early detection, and treatment. Both of these factors are in direct relationship to levels of fear. Thus, education programs are designed to increase knowledge so as to increase optimism, and thereby raise the likelihood of both proper lifestyle and prompt action for early detection. Information on the nature of fear in relation to cancer assists the public education planners in devising strategies for most effectively reducing that fear.

Formative evaluation of most of the educational materials produced ensures audience acceptance and increases probability of impact. Materials are tested for appropriateness of format and style, readability, and short-term effects on attitudes, levels of knowledge, and behavior in the target audiences. Pre- and post-test designs are used.

The 1977 national survey revealed that television has the greatest reach of any medium used as a source of information on cancer. TV is considered an important information source on cancer by 45% of the population 15 years of age and over and is especially effective in reaching the French-speaking population (64%) and the 15-19-year-old audience (51%). Only 25% of all Canadians cite newspapers as the most important source (much less than 10 to 15 years ago). Schools are the second most

frequently mentioned source by 15-19-year-olds, ranking second to TV. Pamphlets are of greater importance to women (20%) than men (14%). Doctors are named as an important source of information by 11% of Canadians overall.

It should be noted that surveys of this kind allow the Society to determine only how Canadians perceive the effectiveness of the media as information sources. The way in which people perceive media may not reflect the true picture of where in fact Canadians get their information.

The Society's Public Education Department makes full use of the literature on public education, the research data available on the effects of programs and methods tried in public education, and the anecdotal evidence offered by other health organizations and agencies. The Society has taken the position, however, based on the literature, that if only those programs were developed for which there is conclusive or convincing evidence of probable success in behavioral terms, very few programs would ever be developed. Two problems are at the basis of this view. First, there is little research on public education that provides strong evidence upon which to build new programs. Second, it may be that conclusive evidence of the behavioral impact of every educational program spread variously through mass media, group activity, or personal one-to-one intervention cannot be realistically measured through conventional social science means.

The Canadian Council on Smoking and Health

The Canadian Council on Smoking and Health puts on what is called National Non-Smoking Week each year in the third week of January. A large-scale national mass-media blitz occurs during that week, and all participating health organizations are encouraged to step up and emphasize their non-smoking programs during that period. The media blitz includes using Canadian musical, dramatic, and political figures in radio and television ads and radio and television talk shows. Radio and television public affairs shows, the news, musical variety shows, situation comedy shows, the newspapers, and all mass media at the disposal of the Council are used. Minimum evaluation is carried out on National Non-Smoking Week each year through volunteers stationed in each province in Canada. Telephone and school surveys are

carried out in major cities of each province. This evaluation can be considered informal evaluation only, since it is done through volunteers, although a standardized questionnaire is used for both the telephone and in-school surveys. A marked increase in public awareness of the Week and its messages has been demonstrated over four years on the basis of this informal evaluation. The decrease in smoking in Canada (a decline from 42.8% in 1965 to 37.3% in 1975) may in part be attributable to the non-smoking programs of the Council and its member health organizations.

A study conducted by Kenneth E. Warner (1977) indicates that the impact of the anti-smoking campaign in the U.S. on the consumption of cigarettes can be measured by fitting cigarette demand functions to pre-campaign data, projecting "ahead" as if the campaign had not occurred, and then comparing these predictions with actual consumption. His analysis suggests that major "events" in the campaign, e.g., the Surgeon General's Report or the Fairness Doctrine in the U.S. resulting in non-smoking ads accompanying tobacco ads on mass media, caused immediate though transitory decreases of 4-5% in annual per capita consumption. However, the cumulative effect of persistent publicity, supported by other public policies, has been substantial: in the absence of the campaign, per capita consumption likely would have exceeded its actual 1975 value by 20-30%. Warner argues that this is a conservative indication of the effectiveness of the campaign, as it ignores other potentially important behavior changes such as the shift to low "tar" and nicotine cigarettes.

Canadian Heart Foundation

Public education by the provincial Heart Foundations is a relatively recent undertaking (within the past five to six years). As a consequence, some unsophisticated and traditional approaches have often been the mainstay of their activity. These include pamphlet, film, and poster distribution, most often associated with the February campaign for funds.

A major role for public education is to communicate the scientific facts to the public. Thus, risk-factor reduction and the potential for prevention of heart attack

and stroke have become the dominant theme of public education for the Heart Foundations.

The Heart Foundations have never attempted a single, monolithic education campaign. Heart Month is an opportunity for individual provinces to raise money for research, each Foundation executing its own plan. However, in the case of the National Non-Smoking Week, the Heart Foundations join with other agencies in a cooperative education campaign around one risk factor. Minimal evaluation has been conducted.

The Ontario Heart Foundation has led the other provinces with respect to public education concepts and practices. It has conducted formative and summative evaluations of its materials (e.g., the film *Celebration*, the "Fitness Wheel," the "Healthy Heart" Kit). Such materials, which have demonstrated high demand patterns, are considered "very successful" but have not been shown to effect enduring lifestyle patterns.

The Ontario Heart Foundation is currently conducting a major study of the role of public education in community lifestyle. A three-year study will examine the potential for community volunteers to deliver a program to enhance heart health. The study, based on the Stanford model, will track a number of measurable outcomes, including knowledge, attitude, and behavior. Preliminary data are not yet available.

Dialogue on Drinking

Dialogue on Drinking was initiated by the federal government in 1976 in response to public concern about increasing alcohol use. In one of Dialogue's surveys, 52.4% of those interviewed knew someone with a drinking problem.

Dialogue was planned as a five-year program designed to provide relevant information to people at national, provincial, and community levels and encourage them to act on alcohol-related issues, through individual and collective self-examination of drinking behavior and responsible decision-making about drinking, and through

community involvement in prevention of alcohol-related problems. The first four years saw newspaper and radio advertising, television spots, billboards, and bus cards, at a total cost of $3,500,000.

Another outcome was the distribution through liquor outlets of 1.3 million copies of a non-alcohol recipe booklet entitled *Great Entertainers.*

In a survey in February 1979, over one-quarter of Canadians recalled Dialogue without assistance and nearly one-half recalled Dialogue with assistance. Only one in four who recalled Dialogue, aided and unaided, had thought further about or discussed drinking with others. Part of the impact of the Dialogue program was the cooperation achieved between federal and provincial jurisdictions in message development, joint identity, distribution of materials, and involvement in the development of community-based Dialogue products. In Ontario, a model program often cited was that in Thunder Bay, where local discussion groups, televised on cable, appear to have some impact in raising the discussion level in the community. The Municipality of Thunder Bay has developed an alcohol policy in relation to the use of alcohol at social and public events and at municipal facilities, apparently the first policy of its kind in a municipality in North America.

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14. Alcohol Programs in Formal Educational Settings

Government Policy and Health Education

Formal educational settings include schools from kindergarten to grade 13 and institutions of higher education. Through policies regulating curriculum requirements and teacher qualifications government attempts to affect who teaches what to whom at what point in the education process. Government policy concerning alcohol education in schools is frequently contained within the physical and health education curriculum guidelines for the elementary, intermediate, and senior school divisions. Yet after an extensive national survey, the Canadian Education Association (CEA) reported that: (1) only 50% of school boards (nationally) have curriculum guides for high schools; (2) health education receives "no more than 10% of the time allocated to a core subject" (p. 22); and (3) "in general, principals were satisfied with [one 20-30-minute period per week] as an 'ideal' " (Gayfer, 1978, p. 22).

> *It is clear that health education is often not identified as a subject in its own right or given "equal time" with more traditional subjects. This situation exists even though knowing how to maintain good health can be classified as a "basic survival skill" and every province has prescribed curriculum guides....Important as health education and services are for these early formative years, one wonders about the degree of follow-through during the equally formative period of adolescence. (p. 23)*

Pointing out that the quality of health education will be a function of teacher training, CEA documents serious failings: teacher training in health education seems to depend upon some self-education activities, a little in-service training, and continuing education, but no formal, systematic education and/or training in health as a specialized subject. The study concluded:

> *The survey replies indicate that in actual practice health education may not be given the importance that provincial and school board guidelines and their rhetoric suggest, since despite the heavy reliance on the classroom teacher...there appears to be little evidence of planned follow-through with professional development and further education opportunities. (pp. 17-18)*

The Canadian Heart Foundation's Position Paper on Childhood Education and Cardiovascular Health (Byrne and Rothman, 1979) summarizes needs in this area as follows:

> *The lack of coherence in school health education curricula, characterized by the variety of programmes, topics, kits, audio-visual aids, etc., suggests the need for training teachers at colleges of education in: (1) a few core health areas; (2) the design of core curriculum; and (3) methods of evaluating the effectiveness; and (4) the matching of the curriculum to stages of development. (p. 44)*

Health education does not enjoy high priority either in teacher training or in the classroom. It is within these constraints that alcohol education must find a place.

Alcohol Education Policies in Ontario

The 1978 Ministry of Education intermediate division curriculum guide for alcohol education reads as follows:

> *Primary/Junior Outline (Grades K-6):*
>
> *Alcohol: The types of alcohol and their general effect on humans should be studied. Media messages that suggest that the use of alcohol is an essential of the good life should be countered. Basic concepts should be developed relating to alcohol and nutrition, alcohol and health, and alcohol and the law.*
>
> *Drinking and driving is a major focus in the Intermediate Division. The Primary and Junior Division studies should provide a sound foundation in those aspects of alcohol education that form the basis for education about drinking and driving.*
>
> *Grades 7 and 8 Outline*
>
> *Alcohol: The emphasis with regard to alcohol education has been changed from that indicated in the previous Intermediate Division guideline (1973) and in the Senior Division guideline (1975). Certain societal developments and changing patterns of use in recent years*

now dictate that basic understandings regarding the use, misuse, and abuse of beverage alcohol and their related family and community problems, should be developed at an earlier stage than was previously considered appropriate.

Statistics show that the use of alcohol by underage drinkers is an increasing problem. The major emphasis in these grades should be placed on factual information with an introduction to attitudes towards alcohol consumption. Key content in this area includes appropriate information, what constitutes responsible drinking, and the roles of decision-making, peer pressure, valuing, and self concept in decisions related to the use of alcohol.

Concepts related to drinking and driving should be introduced to provide a solid foundation for the major emphasis which this study will receive in Grades 9 and 10.

Grades 9 and 10 Outline:

Alcohol: The progression of alcohol education from Grades 7 and 8 to Grades 9 and 10 should involve a continuing emphasis on affective and behavioural concepts. Increasing attention and depth of treatment should be given to valuing, decision-making, peer pressure, and responsible drinking. The entire area of drinking and driving should be a major focus in Grades 9 and 10.

The above 1978 guidelines reveal several dimensions of the government's concern with alcohol problems vis-à-vis young people's education: (1) there has been an increase in government concern about alcohol use/abuse by young people; (2) there has been an increase in the importance attached to alcohol education for young people; (3) there has been an increased concern that alcohol education commence at an earlier age (i.e., grades 7 and 8) due, at least in part, to evidence that young people are being exposed to and using alcohol at an earlier age than formerly; and (4) there has been increased concern with drinking/driving in our society at large, but especially among young people.

It can, however, be argued that the guidelines could be significantly improved. (1) Education about alcohol is recommended for age groups who have *already* had considerable exposure to and experience with alcohol use: a 1977 survey of Ontario grade 7 students revealed that 76% reported having used alcohol at least once in the previous 12 months, though, admittedly, most had done so only "on special occasions (e.g. Christmas, wedding)." The corresponding figure in 1979 was 77% (Smart et al., 1980). (2) Education about alcohol competes with a large number of other health

education topics for a very limited amount of class time. In grades 7-8 ten other health topics compete for what the Ontario Ministry guidelines refer to as "heaviest concentration"; in grades 9-10 there are eight such competitors. If, at a liberal estimate, 36 hours throughout the school year are available for health education in grades 9 and 10, only four or five per year would be available for alcohol education - not a large amount of time, given the number of alcohol-related issues to be considered. (3) Very little actual guidance is given by the Ministry of Education concerning the time, content, and processes appropriate for alcohol education. As a result, alcohol education curricula throughout Ontario's more than 150 school boards are of very mixed quality, little time is devoted to alcohol education, local board time and resources are wasted through duplication of efforts, and there is no guarantee that boards will develop or otherwise obtain more detailed alcohol education curricula or materials. This situation may be alleviated through ARF's recent development, evaluation, and provincial dissemination of alcohol education lesson plans for grades 7-8 and 9-10; there are, in addition, newly developed alcohol teaching resource kits which are now available from the Ontario Ministry of Health.

Implementation of Alcohol Education Policies

Even if the present Ontario guidelines or board lesson plans were adequate, there would still exist a problem of implementation. Unlike other school subject areas such as mathematics, health as a subject does not seem to demand much in the way of accountability on the part of either students or teachers; it does not receive a high value, and there appears to be no requirement that students have a thorough grounding in previous years' curriculum material. Data from a 1979 Ontario-wide survey involving grades 7, 9, 11, and 13 revealed that a sizeable minority (33%) of students claimed never to have had any classes or lessons at any school that talked about alcohol, and 46% claimed that this also held for the preceding academic year. Of those claiming to have had any alcohol education, the majority reported only one of two classes. Results were not much more positive for the senior grades: 22% of grade 13 claimed never to have had any alcohol education. These results are obviously open to interpretation (see Goodstadt et al., 1978), but their validity is within acceptable limits. The correspondingly meagre state of health education has been documented by the CEA study, already indicated. The report pointed out the

difference between allocating time and actually using it. One teacher commented, "I have a specified time but actually get health taught about half the time, because reading, math, science, etc., come first" (Gayfer, 1978, p. 22).

Impact of Alcohol Education Programs

The ultimate question, however, is what impact does alcohol education have? Answers to this question obviously depend upon the desired educational objectives, but research is limited by sparse and usually inadequate experimental data. (For earlier reviews of alcohol education see Globetti, 1974, and Milgram, 1976.) Only a very few school alcohol programs have had experimentally controlled examination.

Williams et al. (1968) experimentally examined an alcohol education program which stressed toleration for temperate social use of alcohol as well as for abstaining, and intolerance "for excessive drinking or the use of alcohol for personal effects" (p. 687). The program, for teen-agers, placed major emphasis on small-group discussion led by an adult, and was conducted every day for one week during periods usually scheduled for religious (Catholic) classes. A randomly created control group was employed for comparisons. Measures were obtained from all students (97 experimental and 80 control, grade 11 male students) pre-program, immediately post-program, one month post-program, and one year post-program. Significant changes occurred in attitudes toward temperate alcohol use in both experimental and control conditions, and in attitudes toward intemperate use in the control group, even over a year's interval. The only instance in which the experimental group change was significantly greater than that for the control group occurred between the pre-test and one-month post-test; this difference was not maintained for the 12-month period. The knowledge scores showed a consistent and significant advantage of the experimental subjects over the controls. Although it was not possible to ensure that the one-year post-test samples had remained intact, comparisons of the drinking patterns of the experimental and control groups were made for one year preceding and succeeding the program. These comparisons showed that "while slightly more experimental than control subjects got intoxicated, it appears that the program discouraged teenagers from becoming intoxicated often." This effect is "a positive and encouraging one; it is the first evidence that teenage drinking behavior can be

modified in a positive way by education" (Williams et al., 1968, p. 701).

An experimental evaluation was recently completed for two sets of alcohol education lesson plans developed for grades 7-8 and grades 9-10 (Goodstadt et al., 1980). The outcome of this research again indicated mixed findings:

- The lessons improved knowledge about alcohol.
- Effects on attitudes about alcohol and its use were mixed: attitudes among drinkers became more pro-alcohol, and among non-drinkers became less pro-alcohol.
- The program produced some beneficial changes in reported alcohol use and expectations concerning future use.

Goodstadt et al. (1979) experimentally evaluated three alternative approaches to alcohol education. The three 10-lesson programs were an information/cognitive program, a decision-making program, and a values clarification program. Results showed:

1. All three experimental programs were well received by students, although the information/cognitive program was evaluated more positively than the other two experimental programs.
2. The decision-making and values clarification programs failed in their basic objectives independently of their failure to influence the alcohol-related measures.
3. The information/cognitive program was the only one to show a significant effect in raising levels of alcohol-related knowledge.
4. No significant attitude changes occurred.
5. Students receiving the information/cognitive program, compared to the control group, reported more frequent alcohol use in the six months prior to the follow-up assessment; but this same group's report of expected future use of alcohol was lower than for the control group (pp. 59-60).

A limited amount of research has been concerned with alcohol education in colleges. Serious errors and inadequacies have been identified in most of the current

textbooks employed in teaching about alcohol in North American colleges (Goldstein, 1975). Three studies have reported mixed results of experimentally designed college programs (Blum and Rivers, 1976; Dennison, 1977; Engs, 1977).

Conclusion

Alcohol education sometimes occurs and has been evaluated within the context of education about drugs in general. There are, moreover, many more experimental assessments of drug education from which one may, with caution, extrapolate. These studies, now numbering more than 150, have been reviewed by several authors, most extensively by Berberian et al. (1976), Blum (1976), Brown (1977), Goodstadt (1974, 1978, 1980), and Schaps et al. (1980). All these reviews share a common pessimism concerning both the impact and quality of programs and evaluations.

Results from these few studies offer very little guidance regarding even the potential impact of alcohol education in the schools. Too few studies have been conducted, too many methodological problems exist within each study, and more questions are raised than answered by the few existing experimental studies.

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15. Summary and Conclusions Regarding Effectiveness of Education/Information Strategies

We have reviewed the evidence concerning the effectiveness of mass public persuasion in influencing knowledge, attitudes, and behaviors, both health-related and other. We have examined influence strategies of both the public and commercial sectors. We have also commented throughout on the nature and quality of the research evidence, and the prospects for successful direct intervention with the public of Ontario where alcohol use is concerned. The results of this review can be summarized as follows:

1. There are many general models of social influence which have been used by health educators, varying in degree of complexity and specificity. By and large, research evidence necessary to evaluate these models scientifically is not complete.

2. The evidence regarding the impact of beverage alcohol advertising is conflicting. Advertising effects are difficult to measure. It does, however, seem reasonable to conclude, with Atkin and Block, that alcohol advertising does influence consumption, drinking patterns, and the perception of the role of alcohol/drinking in society, particularly among the young. Moreover, it seems likely that the "lifestyle" advertising of alcohol in Ontario has been coincident with (rather than causative of) the trend toward increased liberalization. However, the possibility that the social effects of alcohol advertising might be cumulative over time, or additive along with other liberalizing factors, should not be ignored.

3. Alcohol is portrayed frequently in commercial television programming (in addition to advertising), often in a favorable light. There is some speculation that the portrayal of alcohol on television encourages consumption via

modeling or imitation. As with advertising, however, any effects of such programming on consumption will be difficult to detect over the short term, because the effects are likely to be subtle, cumulative, and indirect, through influence on abstract and generally held cultural beliefs.

4. It is clear that alcohol education in formal educational settings can increase knowledge levels. What is not clear, however, is the relationship between increased knowledge and attitude, belief, and behavior change with respect to alcohol. Findings in this area are mixed and somewhat sparse, but there is at present no solid evidence to indicate that school alcohol education reliably influences drinking behavior. It must be kept in mind, however, that much of the evidence necesary for a confident conclusion regarding impact does not exist at present.

5. The impact of the mass media in health-oriented alcohol education appears to be a limited effect on awareness and public attitudes. No lasting, substantial behavioral impact has been demonstrated. However, very few programs have been adequately conceptualized or evaluated. Many programs have been either too short in duration, not intensive enough, or lacking sufficient focus to affect substantial proportions of their target audiences with the message.

6. The evidence concerning the impact of the media in other health-related areas is no more convincing than for alcohol. Although the mass media can crystallize or support existing attitudes and beliefs, used alone they generally produce limited changes in awareness and attitudes. When combined with such approaches as the behavioral skill training incorporated into the Stanford and Karelia programs on cardiovascular health, the media appear to hold promise in altering and maintaining behavior. Whether such programs will have lasting and consistent behavioral effects, and whether they are generalizable to the alcohol area, remains to be seen.

7. Many other health agencies have ongoing and energetic public education programs. It appears that the mass media are used to increase awareness and public concern about health problems but not necessarily to produce changes in

health-related behavior. Often the media are used to create an appropriate public image and an awareness of the health agency in the mind of the public. This is seen as an important step in the public education process, which may facilitate public involvement. Good personal relationships with media personnel and access to media coverage are also stressed by many of these agencies.

8. While there are conflicting research findings on the relative importance of the various mass media in influencing public perceptions of social problems, it does appear that the media are influential in the setting of public agendas. Again, the effects are subtle and difficult to isolate from many covarying social influence factors. It also appears that the press is more influential with opinion leaders and that television is more influential with the general public.

9. The electronic media and television in particular are enormously influential on social values, although the mechanisms of this cultural influence are still poorly understood. Because the cultural environment provided through mass entertainment media forms an important window on the process of cultural change, popular culture should be a subject of study and observation for health educators.

10. Artistic and marketing judgments still direct most of the approaches of commercial advertising. Health educators can draw on the experience of advertisers and in particular their advertising research in audience segmentation, measurement of outcomes, and modeling of consumer behavior.

In general, *neither the research evidence nor the actual programs reviewed would justify ARF's investing large amounts of resources in media space and time for a mass public education campaign. Given the expenditures of the alcohol industry in the promotion of its products, the Task Force estimates that yearly costs in excess of the Foundation's budget would be necessary to match its efforts.*

There is little research evidence that mass media alone affect behavior and attitudes in substantial and lasting ways. The available evidence indicates that mass

media are effective in causing small-scale attitudinal shifts. Hence, there is no good reason for ruling out experimental programs using the media to influence awareness and public attitudes.

The evidence also indicates that the media can establish a context which may facilitate the effects of other kinds of public education strategies. The behavioral skill instruction practised in the Stanford Heart Disease Prevention Project is an example of such an approach.

The evidence from communication research indicates that there are some established principles which cannot be ignored in any attempt at public education of whatever scale.

1. *Exposure* to the message or messages must be assured through careful consideration of audience/target-group characteristics.
2. *Attention* to the message must be assured through the use of appropriate media, communicators, and message content.
3. *Acceptance* of a message is aided by (a) *credible sources*, (b) *concise and simple content*, (c) *motivation, arousal, and entertainment value*, (d) *repetition*, and (e) *social/interpersonal support.*
4. *The probability of* behavior change *is enhanced by message strategies that provide explicit instructions for change.*

To conclude, there is no "magic bullet" for the field of public education. There will be no easy answers.

REVIEW OF IMPACT OF REGULATORY/CONTROL POLICIES REGARDING ALCOHOL

Assuming that alcohol control policies are adopted, what impact will those policies have? Because some of the less coercive* aspects of control policies have been reviewed in the preceding sections dealing with education/information programs, this section will discuss policies that are more coercive.

Not all alcohol regulatory/control measures have been equally evaluated, and existing research evidence is equivocal. A number of factors have impeded such research:

1. Because of ethical and political considerations, experimentally designed studies in natural settings are very uncommon, and thus the possibility of comparing trends in experimental and control communities is removed.
2. "Natural" experiments, such as strikes in the alcohol industry, while providing important insights into the effect of changes in availability, are typically short-term.
3. The opportunity to examine the impact of more restrictive policies has been limited in decades in which the trend has been toward more liberal policies.
4. The timing and orchestration of changes in alcohol availability are not planned to facilitate evaluation. Because modifications in regulations and other factors are operating at the same time, it is difficult to separate the effect of each on consumption.

Notwithstanding these constraints, it would be wrong to assume that no policy conclusions can be drawn. Social policy decisions in areas other than alcohol may, or may not, rest on research evidence. It seems ironic that policy changes in the

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* See chapter 3 for discussion of this concept.

direction of greater restriction of alcohol are expected to be supported by definitive data regarding their impact; such rigorous support has not been required when changes in the direction of greater availability have been introduced.

What evidence is available will also have important implications for the identification and development of any educational messages for the general public, as part of "fostering public support for appropriate control policies." One basis for presenting such messages is the research evidence in their support; some measures can be backed up by a great deal of such support, while others are only weakly supported.

16. The Relationship between Various Indicators of Alcohol Problems and Alcohol Regulatory/Control Policies

Indicators of Alcohol Problems as a Function of Consumption Levels

While chapter 3 reviewed the extent of alcohol-related problems in Ontario, this chapter goes beyond Ontario data to examine the linkage between various indicators of problems, consumption levels, and availability. Three indicators include liver cirrhosis mortality, public order offenses, and drinking/driving. The extent of strength and weakness of these measures is discussed in chapter 3. As discussed earlier (chapter 4) there is a positive relationship between aggregate consumption level and the proportion of the population drinking at hazardous levels.

A number of other variables have been correlated with the rate of consumption. Cartwright et al. (1978) report that an increase in consumption in Britain was associated with increased prevalence of physical, economic, family, and social problems related to heavy drinking. Such indicators have not, however, yielded as strong or consistent a relationship to overall consumption as liver cirrhosis mortality. For example, Orford and Edwards (1977) found that between 1949 and 1974, whereas hospital diagnoses of alcoholism and alcoholic psychosis increased twenty-fold in England and Wales, and drunkenness arrests more than doubled, liver cirrhosis deaths increased by 70%. During this period (1950s and 1960s) the per capita rate of consumption increased by 26% in the United Kingdom (Sulkunen, 1976, p. 249). Ontario data similarly reflect substantial increases in the rates for several alcohol-related diagnoses (see chapter 3).

Other surveys have not found the expected relationship between consumption and other alcohol-related indicators. In comparing alcohol beverage sales data and survey results in Iowa, Fitzgerald and Mulford (1978) report that although "seasonal increases are accompanied by increases in the number of alcohol-related troubles

reported," "respondents reporting alcohol-related troubles in the 1958 (summer) survey were not concentrated in the categories of high consumption" (p. 890). Other investigators have noted that variations in some consequences, such as those arising from very heavy "binge" drinking, may not be directly and positively related to variations in the per capita rate of consumption. Parker and Wolz (1979) "failed to find a relationship between alcoholism rates based on cirrhosis mortality rates and self-reported current life problems with spouse, relatives, friends, job, police, finances and/or health." Furthermore, the expected relationship between frequent heavy drinking and incidence of current life problems was not evident in their analysis of data from several large U.S. surveys (cited in Ratcliffe Research and Consulting, 1979, p. 6).

Studies have used such indicators as liquor offenses (particularly public drunkenness) and motor vehicle accidents involving alcohol, or drinking/driving offense rates, correlated with either overall consumption levels or the availability of alcohol. However, the use of these indicators is also fraught with serious measurement problems. Public drunkenness and drinking/driving statistics are difficult to interpret. They are highly susceptible to changes in policy, deployment of police resources, and, more generally, shifts in public sentiment about the relative importance of certain types of social problems. Therefore, a "dry" sentiment and lower rate of consumption may result in a closer ratio between official interventions and actual events, whereas a "wet" sentiment and higher rate of consumption may lead to only a small proportion of actual events being subjected to official control.

Indicators of Alcohol Problems as a Function of Availability

In several cases a decline in availabilty and hence in aggregate consumption has been clearly linked to a decline in alcohol-related problems. For example, Mäkelä notes: "In 1917 in Denmark a tremendous rise in the price of distilled beverages caused an abrupt and lasting fall in the total consumption of 100% alcohol." This decline in consumption "was accompanied by a correspondingly dramatic drop in the incidence of delirium tremens and in deaths from chronic alcoholism" as well as in arrests for drunkenness (Mäkelä, 1978, p. 336; see Nielson, 1965). Other examples are reported by Smart (1974) and Ledermann (1964): the former involving the

alcohol situation in Britain during the First World War and and the latter pertaining to France during the Second World War.

More recent examples involve Sweden and Finland. In both cases strikes in the beverage industry were associated with reduction in alcohol-related consequences (reviewed by Mäkelä, 1978, pp. 337-338). The 1963 strike in Sweden was accompanied by a decrease in arrests for drunkenness, a slight reduction in the rate of drunken driving, and a decrease in the proportion of alcohol cases among accident-injured clinic patients. The 1972 Finnish retail liquor store strike was accompanied by a decline in arrests for drunkenness, a reduction in cases of assault and battery, a lower number of admissions of patients, and fewer cases of drunken driving. Further analysis of the impact of these strikes on specific sectors of the drinking population indicated that in both instances the alcoholic population's consumption was reduced.

Differences in the availability of alcohol are usually not reflected in parallel differences in public drunkenness statistics (Popham et al., 1978, pp. 242-246). A gradual increase throughout the 1950s and most of the 1960s in the rate of public drunkenness convictions in Ontario was followed by a decline in the late 1960s. This decline is probably best explained by the trend toward decriminalization of this offense and the use of detoxication centres as alternatives to police cells.

Smart (1977, 1979) found that reduced availability of alcohol had some impact on public drunkenness but little impact on the rate of drinking/driving. His study (1977) of liquor store strikes in Halifax and St. John's indicates a significant decline in drunkenness arrests in St. John's; however, a similar pattern is not evident for the Halifax strike. Impaired and drunken driving arrests did not decline in either city during the respective strike periods. A second study (Smart, 1979) involved three communities in the Northwest Territories (Frobisher Bay, Rae-Edzo, and Fort Resolution, with Inuvik and Pangnirtung as control communities). The three experienced changes in restrictions on the availability of alcohol, ranging from prohibition to closure of the package store to rationing. Only in Frobisher Bay, which was the most isolated of the three, was there a decline in alcohol-related public order problems. Although there was no real change in drinking/driving arrests, the data show that arrests for both public drunkenness and assault decreased

substantially immediately after the closing of the sole package store in Frobisher Bay.

More general research by Bunce (1976) involving five regions of California, and by Bunce and Room (1977) pertaining to 17 countries, reported negative findings in comparing liquor offense and consumption rates. Therefore, the work noted above, as well as research reviewed by Popham et al. (1978) and Mäkelä (1978, pp. 325-326), suggests that liquor offense rates are typically not positively correlated with the availability of alcohol and consumption levels. Nevertheless, these negative findings should not lead to the conclusion that availability of alcohol has no bearing on public drunkenness or liquor offense rates. For example, the widespread and rapid liberalization of alcohol controls in 1969 in Finland was "accompanied by a substantial and real increase in consequences related to drunkenness" (Ahlström-Laakso and Österberg, cited in Mäkelä, 1978). However, in Ontario, where the changes in availability have been more gradual, dramatic changes in the rate of public drunkenness and in liquor offenses are not evident.

Some researchers have proposed that an inverse relationship might be expected between the accessibility of alcohol and prevalence of drinking/driving. Room (1975) presents the following statement:

> *If we compare traditionally wetter and dryer areas of the U.S., or if we compare traditionally wetter Denmark and dryer Finland, the mix of social problems associated with heavy drinking in the dryer areas seems in general more lurid and explosive; not only the ratio of social problems to heavy drinking (Cahalan and Room, 1974), but also the absolute prevalance of some of this higher prevalence of alcohol problems is undoubtedly due to the greater sensitivity and reaction to problematic drinking behaviours, in dryer areas, but part may be due to higher rates of problematic behaviours. Thus, although there are only half as many heavier drinkers in dryer regions in the United States (Cahalan and Room, 1974), a national roadside breathtesting survey found high blood-alcohol levels to be somewhat more common among drivers in dryer than in wetter regions of the country (Wolfe, 1974). (p. 363)*

Such paradoxical findings reflect the multiplicity of factors involved: The relationship between consumption level and drinking/driving problems is likely to change not only with the level of consumption (whether low or high), but also with orientation to alcohol (whether "dry" or "wet") and the visibility of consequences of heavy consumption (whether "hidden" or "obvious").

In Ontario the rates for alcohol-related fatalities and drinking/driving convictions have increased substantially since the mid-1960s. Although one can reasonably conclude that increased consumption was implicated in the increase, changes in the perception of drinking/driving and the concomitant intensification of law enforcement were probably also important factors.

Investigations of drinking/driving among youth following the 1971 lowering of the legal age to 18 in Ontario found an increase in auto accidents (e.g., Schmidt and Kornaczewski, 1973), as well as an increase in on-premise beer consumption (Schmidt, 1972). A number of studies have documented an increase in alcohol-related collisions in conjunction with the lowering of the drinking age (e.g., Whitehead, 1977).

Summary

The best single index of social, personal, and health problems associated with alcohol use is the rate of death from liver cirrhosis. Other health or social consequences are more difficult to estimate, since data are likely to be influenced by reporting or tabulating artifacts. Furthermore, they do not relate as strongly or as consistently across time and cultures to measures of consumption or availability. As a surrogate or proxy for liver cirrhosis deaths, per capita consumption in a population thus provides a good estimate of alcohol abuse in that population.

In some exceptional circumstances, such as strikes by beverage industry employees, dramatic and rapid changes in the number of outlets in formerly "dry" areas, or the extension of the right to drink to inexperienced sectors of the population, rates of public order problems are likely to rise or decline in response to changes in availability.

Summary of Argument Concerning the Relationship between Alcohol Problems and Alcohol Regulatory/Control Policies

The argument that alcohol control policies may be an effective means of preventing or ameliorating alcohol-related problems can be summarized in a series of propo-

sitions deriving from the connections between prevalence of problems, consumption levels, and availability.

1. Heavier alcohol use is related to an increased risk of physical damage (Schmidt and Popham, 1975-76; Bruun et al., 1975, chapter 2; Room, 1975).
2. a) Liver cirrhosis death rates are a good, if not the best available, index of hazardous alcohol use.
   b) Higher rates of per capita consumption in a population are positively related to higher rates of death from liver cirrhosis (Schmidt, 1977).
   c) Evidence concerning the relationship between per capita alcohol consumption and other physical damage is less convincing (Bruun et al., 1975, chapter 2).
   d) The relationship between per capita alcohol consumption and social damage is ambiguous with respect to both its consistency and its interpretation (Mäkelä, 1975; Room, 1975; Smart, 1976; Douglass et al., 1979).
3. Therefore, in examining the consequences of alcohol use, especially hazardous use, it is appropriate to examine the per capita alcohol consumption.
4. Alcohol consumption in a population, as studied in many populations, has the following characteristics (Bruun et al., 1975, chapter 3; Davies, 1977; Schmidt and Popham, 1978):
   a) a unimodal distribution - that is, it possesses only one peak;
   b) a continuous distribution - that is, without a discernible break between different groups of drinkers;
   c) a positively skewed distribution - that is, with most people bunched to the left (i.e., the lower consumption) end of the distribution;
   d) constancy in the measure of dispersion;
   e) a lognormal distribution - that is, a logarithmic transformation of the alcohol consumption values (when plotted against the proportion in a population consuming those quantities) will produce a normal distribution.
5. Implications of the above distribution characteristics are:
   a) The higher the mean level of alcohol consumption in a population, the greater will be the proportion of the population in the right-hand tail

(i.e., the heavier consumption end) of the distribution (Schmidt and Popham, 1977; Bruun et al., 1975, pp. 33ff).

b) Hence, the higher the mean consumption, the greater the proportion of the population with alcohol-related problems (de Lint, 1975; Bruun et al., 1975, pp. 33ff).

6. Most distributions of alcohol consumption examined to date have differed principally in their *mean* consumption (Bruun et al., 1975, p. 33; Schmidt and Popham, 1978; Schmidt and Popham, 1977, pp. 157-58).

7. Examination of the distribution of alcohol consumption in a population, therefore, provides an estimate of the prevalence of alcohol problems in that population.

8. Any measure which reduces the overall (and hence the mean) consumption in a population will reduce the prevalence of certain alcohol-related problems. Some of these effects may be apparent in the shorter term; others may be evident only after a longer time period (e.g., a generation) has passed. Although the ultimate impact of social measures will be assessed in terms of the prevalence (i.e., the overall rate) of alcohol-related problems (Schmidt and Popham, 1977, p. 159), the more immediate objective of most measures is to reduce the incidence of *new* cases of alcohol-related problems in a population (Popham et al., 1976, p. 616).

9. Regulatory/control policies influence per capita alcohol consumption, and therefore offer promise as effective measures to prevent or retard the development of alcohol-related problems in a population. The considerable evidence accumulating in support of this last proposition in recent years is as summarized in extensive reviews by Popham et al. (1976), Popham et al. (1978), Bruun et al. (1975), Popham and Schmidt (1976), and Moser (1979). A summary discussion of this evidence is presented in the following chapter.

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17. Review of Evidence of Impact of Regulatory/Control Policies

General Impact

Impact on Heavy Drinkers

Legal restrictions on the availability of alcohol have an impact on consumption by heavy drinkers. This conclusion runs contrary to the conventional belief that heavy drinkers will go to any lengths necessary in order to obtain alcohol. The latter view is often linked to a "disease" model of alcohol problems, and more specifically to concepts such as "craving" or "loss of control." Certain heavy consumers use bootleggers when legal outlets are closed or will drink non-beverage alcohol. However, the perception that all have an insatiable desire for alcohol underestimates the role of contextual and structural restraints.

There is considerable variation in the characteristics, drinking styles, and motivations of persons who at some point in their lives drink at hazardous levels. Panel studies of "problem drinkers" have shown that consumption patterns change over time (e.g., Cahalan and Room, 1974). Research on spontaneous recovery among alcoholics (e.g., Smart, 1975) points to the relevance of social factors. And work on controlled drinking (e.g., Davies, 1962; Sobell and Sobell, 1975) also indicates the relevance of interpersonal and structural constraints in a shift from heavy to moderate consumption.

Studies based on aggregate statistics provide another and possibly even stronger justification for the conclusion that general restrictions on availability have an impact on heavy drinkers. Liver cirrhosis mortality rates, which are considered the most accurate indicator of the prevalence of alcoholism (e.g., Schmidt, 1977), have been found to respond rather quickly (within a year or two) to major restrictions on

availability that produce a decline in the overall rate of consumption.

The research touched on above indicates that heavy drinkers are influenced by changes in availability. Even alcoholics are affected by their resources and by interpersonal constraints. For example, the wine rationing in France in 1941 was followed by a dramatic decline in cirrhosis mortality in 1942 (cited and illustrated in Kalant and Kalant, 1971, p. 107). Other examples of this type of relationship are evident in Britain during the First World War (Mapother, 1928; Wilson, 1939 - cited in Davies, 1977), in Ireland 1900-1910, in Denmark 1917, and in the United States 1916-1932 (Mäkelä, 1978, pp. 35-37; Kalant and Kalant, 1971, pp. 105-107). In each of these examples a major restriction on availability was followed by a sharp decline in the rate for alcohol-related problems - particularly health problems.

Impact on Other Drinkers

Any liberalization of controls on availability which leads to an increase in the aggregate consumption rate is likely to result in an increase in the prevalence of heavy users (see Ekholm, 1975). Conversely, a control measure (or measures) which leads to a decline in the overall consumption rate is likely to lead to a decline in the prevalence of heavy users.

During periods of liberalization many consumers are subjected to a variety of pressures to drink - for example, beverage outlets may be more common, consumption may be linked to a wider range of leisure activities and forms of entertainment, and the media message or on-site promotion of alcohol may be intensified. In the context of these social changes in the type and frequency of drinking situations, the potential heavy consumer will find numerous legitimate and accepted occasions to drink. Although his/her consumption may be moderate at one occasion, participation in numerous drinking occasions in the course of a week can lead to potentially hazardous levels of alcohol intake. On the other hand, during periods of "deliberalization" potential heavy drinkers are likely to be subjected to declining reinforcements to drink. They may encounter fewer occasions at which alcohol is served, and/or fewer drinks served per occasion. Unlike the liberalization context where the potential heavy drinker is moving on the crest of the "great wet

wave" (see Sulkunen, 1977), in the "deliberalization" situation the potential heavy drinker is swimming against the tide.

Two concepts have emerged which are relevant to the relationship between changes in the aggregate level of consumption and changes in the prevalence of heavy consumers. One is the "addition hypothesis," and the other is the "contagion effect."

The "addition hypothesis" implies that with liberalization of controls on alcohol and an accompanying rise in levels of consumption, new ways of drinking are added to old ways, instead of the new replacing the old (see Mäkelä, 1975; Sulkunen, 1977). In other words, "addition rather than substitution" is a typical consequence of making certain beverages more available. With the expansion of drinking occasions and styles, with "modern" or "faddish" ones supplementing traditional contexts and patterns (Single and Giesbrecht, 1979), drinkers at various points on the "light" to "heavy" continuum will be faced with increasing opportunities to drink, as well as pressures to drink and reinforcements for drinking. Furthermore, for those who drink frequently, the expectations, pressures, and reinforcements are likely to be more potent than for occasional consumers.

A related concept - namely, the "contagion effect" - has been utilized to hypothesize about changes in the drinking habits in the broader societal context and also at the interpersonal level: "an increase in the consumption of 'normal' drinkers may induce changes in the drinking habits of near-heavy drinkers which may in turn lead to an increase in the prevalence of heavy users" (Bruun et al., 1975, p. 31; see also Sulkunen, 1977).

The correlational data involving the availability of alcohol, consumption levels, and prevalence of heavy consumers (see especially Popham et al., 1978, pp. 249, 251, 253) provide a substantial basis for concluding that certain control measures or "deliberalization" will curtail the rate at which moderate drinkers become heavy drinkers. However, research which specifically examines the impact of deliberalization on consumption and consequences is scarce.

Impact on Cultural Perceptions of the Appropriate Use of Alcohol

Control measures may lead to changes in habits, attitudes, or perceptions. Even restrictions which have little direct impact may have a symbolic and precedent-setting effect beyond the specific situation. In addition, if the granting or denying of a license involves widely publicized debate and discussion, this may reinforce public sentiment about restrictions on alcohol.

A case in point is the decision not to allow beer sales at the Blue Jays baseball games at the CNE stadium in Toronto. Granting a license would not likely have resulted in a detectable increase in per capita consumption in Toronto. However, the debate around the proposal drew attention to social consequences of alcohol abuse and pointed out the precedent-setting implications of the requested liberalization. Allowing beer at Blue Jays games might lead to applications for licenses at hockey and football games (*Globe and Mail*, March 24, 1977, pp. 1-2).

Specific Regulatory/Control Policy Approaches

A very wide variety of regulatory/control policies are available, including:

1. Controls on availability via:
   a) Outlet frequency
   b) Licensing of on-premise establishments
   c) Hours of service
   d) Minimum age of purchaser/user
   e) Beverage type
   f) Alcohol content
   g) Price/taxation
   h) Limitation on production of raw materials
   i) Limitation on commercial production
   j) Limitation on home production
   k) Import/export controls
   l) Rationing
   m) Restrictions to certain categories of persons (interdiction)

2. Controls on purchase and/or use situations via:
   a) Type of retail outlets
   b) Type of on-premise establishments
   c) Definition of contexts for private consumption (e.g., "home")
   d) Advertising
   e) Drinking/driving

There are, in addition, many more minor variations in controls on availability and use which traditionally form part of alcohol control policies. Extensive reviews are provided by Popham et al. (1976), Popham et al. (1978), Bruun et al. (1975), Popham and Schmidt (1976), Mäkelä (1978), Moser (1979), Loeb (1978), and Room (1978). Nevertheless, with the exception of a few of the major controls, most of the regulatory measures have typically been evaluated in only a few instances for reasons discussed above, namely, ethical, political, and administrative barriers.

There are many ways in which alcohol is made available. Popham et al. (1976, 1978) consider outlet frequency, type and location of outlet, hours of sale, drinking age, price, differential taxation, and overall system of control in their survey of the literature on government control measures. The authors point out that during the first few years of prohibition in Canada, Finland, and the United States "all indicators of alcohol consumption and alcohol problems reached the lowest level yet achieved in a period for which there are relevant data" (Popham et al., 1976, p. 585).

Availability via Outlet Frequency

The number, and more important the per capita rate, of outlets in a community has been one of the most frequently studied "controls" on alcohol availability. From Popham et al.'s 1976 and 1978 reviews and elsewhere, the impact of outlet frequency appears to be mixed (see table 17:1).* Some studies show an increase in alcohol consumption with increases in outlet frequency; a similar number show no significant relationship in either direction; two studies show more drunkenness

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* Among the complications in measuring availability via number of outlets is the considerable variation in seating/standing room, volume of clientele, and even hours of sales between different on-premise outlets.

TABLE 17:1
RELATIONSHIP BETWEEN FREQUENCY OF
OUTLETS AND ALCOHOL CONSUMPTION PROBLEMS

RELATIONSHIP BETWEEN OUTLETS & CONSUMPTION	OUTCOME	NOTES	AUTHOR
POSITIVE RELATIONSHIP	Positive relationship between frequency of package stores and sales	USA	Simon, 1966
	Introduction of outlets produced increase in overall consumption, decline in illicit alcohol consumption; no increase in intoxication	FINLAND	Kuusi, 1957
	Introduced to "dry" areas produced similar results to above	NORWAY	Amundsen, 1965
	Rapid increase in the number of outlets led to rapid increase in alcohol consumption	FINLAND	Makela, 1972
	Positive relationship between per capita number of outlets and consumption in Northern Ontario	ONTARIO	Giesbrecht, et al. 1977
	Rates of on-premise outlets significantly related to rates of alcoholism	USA: 38 states and D.C.	Harford, et al. 1979
NEUTRAL RELATIONSHIP	Non-significant correlation between on-premise licences and drunkenness convictions	ENGLAND	Popham, et al. 1976b.
	No relationship between tavern rates and per capita sales or alcoholism prevalence	USA	Popham, et al. 1976b.
	No relationship between limitation on number of package stores and off-premise consumption	USA	Entine, 1963
	Equal number of buyers in "dry" and "wet" towns	ONTARIO	de Lint & Schmidt, 1966
	No effect of change from "dry" to "wet" town on drinking/driving accidents, etc.	ONTARIO TOWN	Smart & Docherty, 1975
NEGATIVE RELATIONSHIP	Higher rates of arrest/conviction for drunkenness where fewest per capita drinking outlets	CANADA; analysis of historical trends	Popham, et al. 1978 Popham, 1962 Popham & Schmidt, 1958
	Negative relationship between rate of outlets and drunkenness charges	ENGLAND	Mass Observation, 1943

charges where outlets are few. Important in this assessment is not only per capita outlet frequency but also the rate of change in this frequency.

Work in Scandinavia provides strong support for this last point. Kuusi (1957) reports that an alcohol policy experiment in rural Finland which established stores for the sale of beer and wine in selected market towns that had previously been dry for many years led to an increase in overall consumption, although there was no evidence of a change in the frequency of intoxication. Amundsen (1965) notes similar consequences arising from the introduction of alcoholic beverage stores to isolated "dry" areas in Norway.

Mäkelä (1975) indicates that there was a 48% increase in alcohol consumption shortly after an extensive and rapid increase in the number of outlets, many of which were established in previously "dry" areas in Finland; this liberalization included the release of medium-strength beer for restricted retail distribution. One of the consequences of this dramatic shift in consumption levels was an increase in the proportion of heavy consumers (Mäkelä, 1971). The implementation of the "Medium Beer Law" in Finland in 1968 led to a 245% increase in consumption of this beverage during the first year (Mäkinen, 1977). This author also notes that within six years the temperance movement became active in demanding repeal of the law; in fact, by the middle of 1976, 80% of the communes involved were taking part in discussion about the repeal issue.

Short-Term or Partial Restrictions on Availability

From time to time there have been short-term restrictions on the accessibility to alcoholic beverages - for example, during strikes by beverage industry employees. Where these "natural experiments" have involved large jurisdictions - e.g., a province - rather than local communities, it is possible to arrive at some appreciation of the impact of reduced accessibility on overall consumption.

In Ontario there have been two strikes by Brewers' Warehousing Company employees in recent decades (1958 and 1968). Single (1979) notes that there was a shift to other beverages (spirits, wines, and imported beers) and there was a temporary

retardation of the overall upward trend in consumption in conjunction with the 1958 strike.

Mäkelä (1975) focused on changes in the number of public drunkenness events rather than consumption levels. In this example employees of the retail liquor stores of the State Alcohol Monopoly of Finland went on strike for five weeks. This was only a partial strike, since alcoholic beverages "delivered in routine fashion to licensed establishments continued normally." However, even with alcohol only partially restricted, it was noted that "the average daily frequency for drunkenness in Helsinki decreased by 54 per cent from the level prevailing before the strike" (p. 354).

However, a study by Smart (1977a) of liquor strikes in Newfoundland and Nova Scotia led to the following assessment:

> *The data indicated that the strikes did not reduce total accidents, impaired driving charges or traffic fatalities. The only anticipated effect was on drunkenness arrests in St. John's, although a similar effect was not seen in Halifax. Perhaps the Nova Scotia strike did not last long enough or result in a sufficiently dry skid row area. (p. 1788)*

Therefore, short-term and partial restrictions on availability, such as alcohol beverage workers' strikes, have a minor impact on overall consumption. The impact on alcohol-related problems probably varies with the length of the restrictions and the drinking styles of the jurisdiction. A major impact is substitution of alcohol beverages that are still available.*

"Real" Price, Consumption, and Consequences

The "real" price of alcoholic beverages has been found in a number of studies to be highly correlated with consumption levels. This relationship was found in the analysis of regional and temporal data for several North American and European

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* In northwestern Ontario the 1975 delisting (or banning) of low-priced domestic fortified wine in 10 outlets resulted in higher consumption of domestic rosé, red, and white table wines, as well as LCBO alcohol and domestic vodka (Giesbrecht and Macdonald, 1980).

jurisdictions by Popham et al. (1978). For almost all of the comparisons there is a strong negative correlation between relative price and consumption, a negative correlation between price and cirrhosis mortality, and a positive correlation between consumption and cirrhosis mortality. In other words, a low price is associated with high consumption and high liver cirrhosis mortality (table 17:2). These relationships have also been documented for Ontario.

Seeley (1960), in analyzing longitudinal data for Ontario, noted a strong inverse relationship between a measure of price and both per capita alcohol sales and liver cirrhosis death rates.

The Ontario series presented by Popham et al. (1978, table 14-4) also illustrates these relationships: between 1928 and 1967 the annual consumption per adult increased from 2.81 to 8.91 litres, while the relative price* declined from 0.102 to 0.035, and deaths from liver cirrhosis per 100,000 persons aged 20 and older increased from 4.4 to 13.2. These relationships have also been documented in other studies.

In his review of "pricing of alcoholic beverages as an instrument of a control policy" Österberg (1975) presents the following statement:

> *The values of price - and income - elasticities reflecting the connection between variations in the demand for alcoholic beverages and changes in liquor prices and consumer income indicate that when other factors remain unchanged, a rise in liquor prices has generally led to a decrease in alcohol consumption while a rise in the income of consumers has generally led to an increase in alcohol consumption. (p.13)*

He finds that "alcoholic beverages . . . seem to behave in consumer markets like other commodities." However, there are a number of geographic and social conditions under which the "elasticity values" of beverages will vary (that is, the extent to which beverage sales respond to changes in "real" price changes), and elasticity may change in response to social trends. Österberg concludes that "pricing policy should be exercised as an integral part of the overall control policy" (p. 15).

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* Average price of 10 litres of absolute alcohol divided by personal disposable income.

TABLE 17:2
RELATIONSHIP BETWEEN PRICE,
ALCOHOL CONSUMPTION AND ALCOHOL PROBLEMS

RELATIONSHIP	OUTCOME	NOTES	AUTHOR
NEGATIVE RELATIONSHIP	A statistical negative relationship exists between alcohol consumption and liver cirrhosis rates	Canada 1920-1960	Seeley, 1960
	Alcohol consumption drops as relative price of alcohol increases	Canada & Ontario 1932-1934	Seeley, 1960
	Negative relationship between the relative price of alcohol and liver cirrhosis mortality	Ontario 1928-1964	Popham, Schmidt & de Lint, 1978
	Higher relative price of alcohol results in lower consumption rates	Ontario 1928-1967	Popham, Schmidt & de Lint, 1978
	A negative relationship between consumption rates and relative price of alcohol	Canada, provinces, American states, other countries (temporal & regional analysis)	Popham, Schmidt & de Lint, 1978
	A negative relationship between liver cirrhosis mortality rates and relative price of alcohol	Canada, provinces, American states, other countries (temporal & regional analysis)	Popham, Schmidt & de Lint, 1978
	Negative relationship between consumption rates and relative price	14 countries	Popham, Schmidt & de Lint, 1978
	Negative relationship between liver cirrhosis mortality rates and the relative price of alcohol	14 countries	Popham, Schmidt & de Lint, 1978
	Increases in relative price lead to decreased consumption	Canada	Ratcliffe Research & Consulting 1979
	Differential taxation has resulted in reduced consumption of alcohol	Denmark	Nielsen & Strömgren, 1969
	Per capita consumption decreases as real pricing decreases	Sweden	Mäkelä & Österberg, 1976
	Negative correlation between moonshine arrests and consumption per capita	48 contiguous American states 1960	Room, 1974
	Negative correlation between drunken driving arrests and consumption per capita	48 contiguous American states 1960	Room, 1974
	Negative (statistically non-significant) correlation between alcohol consumption per capita and proportion of fatal accidents	American states, 1955	Schmidt & Smart, 1963
	Correlation between consumption and highway deaths, and between consumption and murder were negative	50 American states, 1968	Grosswiler, 1972

TABLE 17:2 (cont'd)

RELATIONSHIP	OUTCOME	NOTES	AUTHOR
NEUTRAL RELATIONSHIP	Non-significant correlations between per capita alcohol consumption and mean Blood Alcohol Level of drivers	8 jurisdictions	Smart, 1976
	Per capita consumption not related to rates of arrest for drunken driving, public drunkenness, number of victims killed or injured in alcohol-implicated accidents	5 regions of California around 1970	Bunce, 1976
	Average consumption not significantly correlated with charges for drunk driving, charges or arrests for public drunkenness, and road accidents with injury	17 counties, 1970	Bunce and Room, 1977
	No relationship between availability of alcohol and per capita consumption or alcoholism rates	U.S.	Smart, 1977
	No relationship between the promotion of higher alcohol content beers in offsetting sales of spirits	Finland Sweden	Ratcliffe Research & Consulting
POSITIVE RELATIONSHIP	A direct relationship exists between relative price and cirrhosis death rates	Canada & Ontario 1928-1958	Seeley, 1960
	A positive relationship between consumption rates and liver cirrhosis mortality rates	Canada, provinces, American states, other countries (temporal & regional analysis)	Popham, Schmidt & de Lint 1978
	A positive relationship between consumption rates and liver cirrhosis mortality	14 countries	Popham, Schmidt & de Lint, 1978
	Decline in consumption accompanied by a decline in cirrhosis mortality	France, 1942-43	Ledermann, 1964
	Rate of consumption and liver cirrhosis mortality rate	20 countries, 1971, 72	Schmidt, 1977
	Rate of consumption and liver cirrhosis mortality rate	10 Canadian provinces, 1971	Schmidt, 1977
	Rate of consumption and liver cirrhosis mortality rate	Ontario, 1932-1973	Schmidt, 1977
	Decline in consumption and decline in drunkenness, assault and battery, drunk driving	Helsinki, 1972	Mäkelä, 1978
	Decline in consumption and decline in arrests for drunkenness	Sweden, 1963	Fredriksson, 1965
	Decline in consumption rates associated with a decline in drunkenness and liver cirrhosis mortality rates	Britain, 1914-1918	Smart, 1974
	Decline in consumption rate accompanied by a drop in prosecutions for drunkenness	Ireland, 1900-1920	Blaney, 1975
	Proportion of abstainers was positively correlated with the rate of arrest for drunken driving	17 countries 1970	Bunce and Room, 1977

However, Brenner's (1975) research based on American alcohol consumption statistics suggests that the relationship between consumption and economic accessibility varies depending on whether long-term or short-term trends are considered. Long-term trends in per capita personal income were found to be positively related to per capita alcohol consumption; but shorter fluctuations in per capita alcohol consumption are inversely related to those in per capita income and the inverted unemployment index (p. 1282). This tendency for per capita alcohol consumption to respond to economic recession apparently occurs within months of any given economic down-turn. His analysis of main beverage types indicates that for distilled spirits, consumption increases with long-term prosperity and also with short-term economic stress. The relationship between economic recessions and short-term trends in consumption is used by Brenner to explain survey findings. A larger proportion of drinkers is found in the higher socioeconomic strata, but the proportion of heavy drinkers is higher at the lower socioeconomic levels. According to Brenner's formulation, those in the lower strata are more susceptible to stress arising from economic recession and some will turn to heavy consumption during these times.

Analyses based on Canadian or Ontario data have typically concluded that long-term trends involving a decline in real price of beverage alcohol are an important factor in the general increase in per capita consumption (e.g., Popham et al., 1978, p. 250; Holmes, 1976; Lau, 1975). For Ontario, changes in per adult consumption over a 25-year period can be compared with income-adjusted real price of the least expensive brands and the number of outlets per capita. As overall consumption increased (by 44.6%), the real price declined (by 41.4%) and the outlets per capita increased (by 24.1%). There are, however, some fluctuations in the overall trend. The consumption rate dropped slightly in 1954 from the 1953 level, as was also the case from 1957 to 1958, and the 1966 and 1967 rates were slightly below the 1965 rates. Anomalies in the overall trend of declining real price occurred in 1954, 1958, 1961, and 1968. With regard to outlets per capita, there was actually a decline in the rate between 1954 and 1959, but thereafter the rate increased from one year to the next, except for a slight drop in 1970. In general the findings support the contention presented in other research: alcohol consumption increases as real prices decline and as the number of outlets increase. The percentage change indicated and the

analysis of American data by Smart (1977b) suggest that of the two variables real price probably has a greater influence on consumption levels than does outlets per capita.

Recent work based on Canadian data has led to the formulation of several options for curtailing consumption via policies influencing price.

Lau's (1975) review of econometric studies in a number of countries led to the conclusion that price is a significant predictor of demand. His recent work on pricing policies (Lau, 1978) provides simulation experiments based on Ontario data. These take into account the "price elasticities" of the three main beverage types, cross-elasticities (beverage substitutability), the share of the market by beverage volume, and the share based on the volume of absolute alcohol. Several models are proposed for curtailing a growth in consumption: some involve raising the price of all three main beverages, and others involve raising the price of one or two and reducing the price of the remainder.

Finally, a paper on "Alcohol Pricing Policy" by Reid et al. (1979) describes current alcohol taxation and pricing policies and then provides the following recommendations:

> *... that Federal and Provincial Departments of Health advocate the adoption by alcohol control authorities of control policies which are consistent with the health objective of limiting increases in per capita alcohol consumption rates.*
>
> *... that Federal and Provincial Health Departments advocate*
> *a) the adoption of an alcohol pricing policy of maintaining, as a minimum, a constant real price for alcoholic beverages, and*
> *b) if a price differential for low alcohol beverages is to be instituted by alcohol control agencies, that the differential be implemented by allowing the price of regular strength beverages to increase, rather than by reducing the current price of low alcohol beverages.*

Changes in Minimum Age

All ten Canadian provinces and 26 states in the U.S. have in the last ten years

reduced the legal minimum drinking age. In the past few years two provinces (Ontario and Saskatchewan) and four states (Michigan, Maine, Minnesota, and Massachusetts) have increased this legal minimum.

Smart et al. (1980) summarize the impact of prior reductions in the drinking age:

> *Most of the reductions were from 21 or 20 to 18 years. Several studies of the effects of these reductions have suggested that in jurisdictions which reduced drinking ages fatal accidents increased more than in those which did not have such reductions. Evidence also suggested that drinking, especially on-premise beer consumption, increased, but comparable studies in areas without changes were often not available (see Smart and Schmidt, 1975; Smart and Goodstadt, 1977; for reviews).*

Table 17.3 summarizes these studies. All studies of the effect of lowering the drinking age show an increase in alcohol consumption and/or associated problems. Rooney and Schwartz (1977), however, present challenging survey data which suggest that states with a lower minimum legal drinking age are more likely to have *less* alcohol consumption and fewer alcohol-related problems among their youth. Smart et al. (1980) provide the only data regarding the impact of raising the age, associating it with small changes in some aspects of drinking patterns.

Other Regulatory Measures

The control measures discussed above are not the only variables that have affected the accessibility of alcohol and the context of its purchase and use. Popham et al. (1976) provide the following examples of the relaxation of restrictions during the last 25 years in Ontario:

> *Since the mid-1950s television has been allowed in beverage rooms; in the past few years, games and other recreational facilities have been permitted in establishments with lounge licenses; some "stand up" bars have been allowed; displays of beverages have been introduced to package outlets; self-service package stores have been established in main shopping areas; and licenses have been issued for on-premise outlets in locations not previously contemplated; for example, museums and other public buildings, theatres, office complexes, large department stores, and sidewalk cafes. (p. 590)*

In the last few years there have been at least two additional changes involving

TABLE 17:3
RELATIONSHIP BETWEEN MINIMUM AGE
AND ALCOHOL CONSUMPTION/PROBLEMS

Relationship between Age/Consumption	Outcome	Notes	Author
EFFECT OF LOWERING MINIMUM DRINKING AGE	On-premise alcohol consumption increased among 18-21	Ontario, 1971, age change from 21 to 18	Schmidt 1972
	Increase in auto accidents for 16-19	Ontario, 1971, age change from 21 to 18	Schmidt & Kornaczewski 1973
	Increase in young fatal crash drivers; nighttime crashes; single vehicle fatal crashes 18-21; 15-17 year-olds	Michigan, Wisconsin, Ontario from 21 to 18	Williams, et al. 1974
	Mixed findings, depending on attitudes to law change; increase in consumption, new group of younger drinkers; increased problems in minority of schools.	Ontario, 1971 age change 21-18; survey of high school vice principals.	Smart & White 1972
	Increase in alcoholism treatment & detoxification first admissions	Ontario, 1971 age change	Smart & Finley 1975-76
	Four Studies: increase in consumption and problems	Ontario 1971 age change; (1) consumption date; (2) vice principals' study; (3) university and college students; (4) alcohol consumption among high school students.	Smart & Schmidt 1975
	Increase in auto accidents among young drivers	U.S., lowering drinking age	Douglass & Filkins 1974
	Increased alcohol-involved collisions among young drivers.	Ontario, 1971 age change	Whitehead, et al. 1975
EFFECT OF RAISING MINIMUM AGE	Small impact on drinking patterns	Ontario, 1979 age increase 18-19	Smart, et al. 1980
OTHER STUDIES	Those with higher minimum age consume more and report more problems.	Five American States with varying minimum ages	Rooney & Schwartz, 1977

liberalization: the introduction of "mini-wine" stores as part of supermarket complexes and the introduction of domestic beer into all LCBO outlets. Higher-strength beer (6.5%) was introduced to the Ontario market at about the same time as the "lighter" beers.

As already indicated, many other measures can form part of alcohol control policies. Most of these have not been evaluated; and, where data exist, results are neutral or mixed. Table 17:4 summarizes the available research with respect to the effects of control regarding brewing laws, drinking/driving, beverage type, outlet type, hours/days available, and advertising.

Summary and Conclusions Regarding Impact of Alcohol Regulatory/Control Policies

A number of conclusions can be drawn concerning the possible impact of alcohol regulatory/control policies on alcohol consumption and alcohol-related problems:

1. The evaluation of the impact of alcohol regulatory measures is fraught with many ethical, political, and methodological problems.

2. Although a large number of measures deliberately or accidentally regulate alcohol consumption and/or its consequences, the impact of only relatively few has been evaluated in any fashion.

3. Regulatory policies have frequently been evaluated via indices such as public drunkenness and drinking/driving rather than liver cirrhosis. Research (see chapter 3) indicates that the former indices can be greatly influenced by cultural, situational, and measurement factors, and are not always good measures of negative consequences of alcohol use.

4. The currently available research data suggests that:

    a) measures that significantly reduce the availability (physical, economic, etc.) will be associated with reduced alcohol consumption;
    b) measures that significantly reduce or regulate alcohol consumption will be associated with a lower prevalence of alcohol problems;

TABLE 17:4
RELATIONSHIP BETWEEN OTHER REGULATORY/CONTROL MEASURES AND ALCOHOL CONSUMPTION PROBLEMS

POLICY MEASURE	OUTCOME	NOTES	AUTHOR
REDUCTION IN CONSUMPTION/PROBLEMS			
AVAILABILITY via LICENSING LAWS	Reduction in drunkenness, cirrhosis death rates.	U.K.; World War I	Smart, 1974
	Reduction in public drunkenness and assaults in one of three communities	NWT - three communities with changes in availability due to rationing; package store closure; prohibition	Smart, 1979
DRINKING/ DRIVING	Initially significant decline in casualties, but disappeared over time	U.K. breathalyzer law	Ross, 1973
	Reduction in night-time fatal crashes and high BAC drivers on road	U.S.: 35 ASAP programs enforcement and education and rehabilitation	Levy, et al. 1978
INCREASE IN CONSUMPTION/PURCHASE			
AVAILABILITY OF SELF-SERVICE STORES	Self-service stores had more customers and more bottles per customer, more females, more bottles of liquor (not wine), more combination purchases, more impulse buyers	Ontario	Smart, 1974
AVAILABILITY VIA BEVERAGE TYPE	Increase in total alcohol consumption	Finland, introduction of stronger beer	Nyberg, 1967 Makela & Osterberg, 1975
	Increase in alcohol (total) consumption	Sweden, introduction of stronger beer	APU, 1974
NO EFFECT ON CONSUMPTION, ETC.			
via OUTLET TYPE	No effect of introduction cocktail and dining lounges	Ontario	Popham, et al. 1976b.
	No effect of introduction of "liquor by the drink".	Washington State	Bryant, 1954
	No effect on overall consumption of beer and wine taverns for both sexes; more away from home consumption	Saskatchewan Town	Dewar & Somer, 1962
AVAILABILITY via HOURS/DAYS AVAILABLE	Not a clear relationship	Toronto, change, extended hours, etc.	Popham, 1962
	No effect on overall total personal injury accidents; redistribution of pattern	Australia, extended hours.	Raymond, 1969
AVAILABILITY via BEVERAGE TYPE	Use of low alcohol beer mainly substitutive rather than additive; but increased number of situations in which beer drunk	Ontario, introduction of low alcohol beer, interviewed users	Whitehead & Szandorowska 1977
ADVERTISING CONTROLS	No effects on annual or monthly per capita consumption	British Columbia, 1971-72. Only partially successful ban.	Smart & Cutler 1976
	No effect of ban; advertising restrictions unrelated to per capita consumption or alcoholism rates.	1) Manitoba, restrictions, 1974 2) U.S. advertising regulations in various States.	Ogborne & Smart, 1980
DRINKING/ DRIVING	Apparent decline in DWI cases; No reduction in alcohol related accidents or injuries or in BAL's	Toronto: RIDE program enforcement and education	Vingilis, et al. 1979
GENERAL AVAILABILITY	No effect on per capita consumption or alcoholism rates	USA	Smart, 1977

c) available evidence provides some support for the argument that regulatory policies will be effective in influencing heavier drinkers;

d) the largest amount of data supporting the role of policy and its impact on availability is with respect to:

- o economic availability or price: higher relative price for alcohol is associated with lower consumption and vice versa; this relationship, however, is a complicated one, determined by "elasticity," "substitutability," and "market share." These data are derived from (i) static correlational data, (ii) time series data, and (iii) natural experiments involving radical changes in the relative price of alcohol;
- o age-related availability: a reduction in the legal minimum drinking age is associated with an increase in alcohol consumption and related problems; little data are available concerning the effect of raising the legal minimum age;
- o availability through outlet frequency: these data show mixed results, but suggest that a radical change in such availability is associated with a corresponding change in consumption.

5. The impact of the total "package" of regulations is probably as significant as the impact of any single control measure; thus, individual small changes in policy may, on their own, have no discernible effect, but cumulatively they may significantly foster changes in alcohol consumption.

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FUTURE ALTERNATIVES: PROSPECTS FOR IMPLEMENTATION OF ARF POLICIES

The earlier sections of this report have traced previous approaches to problems associated with alcohol abuse and have outlined various steps the Foundation has taken in the past to support its proposed solutions. Some attention was given to the role of what is now the Education Resources Division, which has attempted primary prevention through educational efforts directed at the general public and at a variety of target populations. More recent evidence suggests that ARF should consider shifting its focus away from mass persuasion aimed directly at modifying drinking behavior and toward urging policy changes that might have greater eventual effect on consumption. According to these findings, alcohol regulatory policies, especially measures affecting availability (for example, price), serve as major determinants of overall consumption levels and in turn affect the extent of problem drinking. To the degree that these findings are valid (a matter of considerable controversy among government officials, academic researchers, and representatives of the alcohol industry), they suggest an extended or even a new role for ARF. Persuasion aimed at changing alcohol policy appears to be a necessary supplement to, or alternative to, persuasion aimed at changing drinking patterns directly.

The Task Force on Public Education was established to advise ARF on how to create "public support for appropriate control policies." In addressing this assignment, the Task Force soon concluded that achieving "appropriate control policies" required more than simply "public support." Favorable public opinion is only one factor affecting the adoption of control policies. Often, so-called "public" opinion consists only of the opinion of a highly vocal minority. Furthermore, the Task Force was aware that public support may already exist for some appropriate "control" policies, but other institutional, political, or economic factors may have prevented such support from being converted into policy. We were also aware that the most effective way to change public opinion toward policy measures may, on occasion, be

to legislate the policy change and let the weight of opinion shift later in response to the added pressure of the new law. Finally, we realized that massive campaigns to modify public attitudes toward alcohol policies might best be mounted not by ARF but by government itself.

The foregoing considerations indicated that our mandate could not be fulfilled unless we set alcohol policy in a broader framework, examined some of the more important variables affecting policy outputs, and tried to assess how ARF might intervene successfully in the alcohol policy process. This section of the report, therefore, identifies relevant alcohol policy actors and their interrelationships. It also assesses the potential of alternative strategies for ARF in terms of their likelihood of success, probable opposition, and internal risks and benefits for the Foundation.

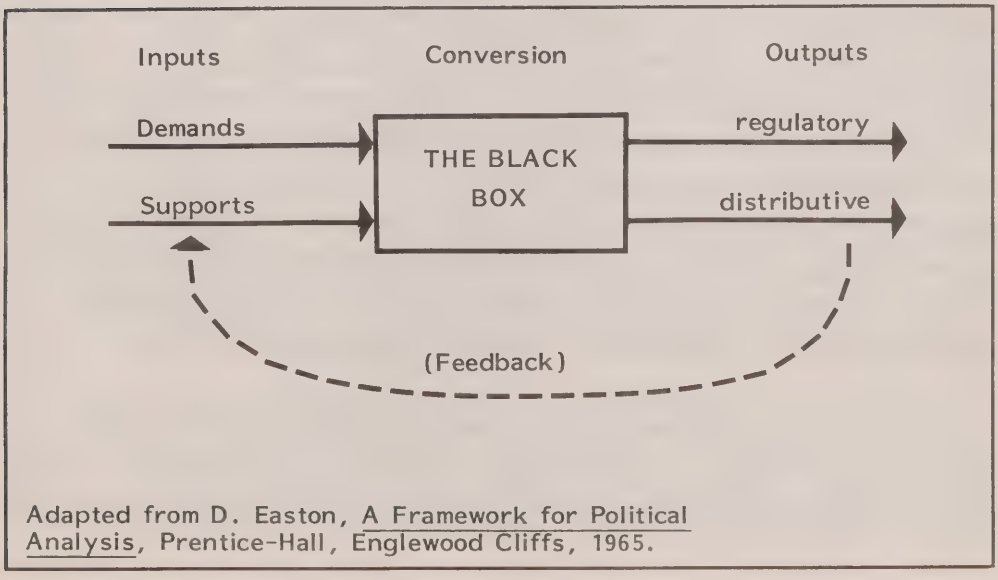
Successful policy intervention requires an understanding of how alcohol policy is made. One must begin by studying the formal structures and processes involved in government: the politicians and government officials who together formulate policy; the varied interest groups to whom they respond; non-legislative directives; the legislative process as it involves committees, opposition MLAs, and the scrutiny of the press; the various enforcement or regulatory agencies that actually implement policy on a day-to-day basis. Knowledge of the formal mechanics of the policy process is not a sufficient precondition to effective policy intervention. The study of the policy process must go beyond a description of the formal structures to include appreciation of the numerous informal channels of communication and the impact of individual personalities on policy outcomes. It is here that science shades over into art, and impressionistic evidence gathered at first hand rivals the "harder" data yielded by formal study. Indeed, the political scientist becomes a less useful guide than the experienced lobbyist who has had extensive personal interaction with the relevant actors. Nevertheless, we shall begin with a standard political science model of the policymaking process and modify it to take account of the peculiarities of Ontario politics.

18. Ontario Alcohol Policymaking: Current Processes

A Standard Model of the Political Process

The most basic model of how public policy is made depicts government as a "black box" located in its societal and extra-societal *environment* (see figure 18:1). The black box receives *inputs* from the environment in the form of *demands* of various kinds (i.e., for policy changes) and *supports* (i.e., monetary and affective). Using the supports as resources, the black box *converts* demand inputs into policy *outputs* such as rules and regulations, allocations of goods or money, levies and taxes. These outputs then *feed back* into the system through their impact on the environment.

Figure 18:1
The Policy Process: A Systems Model



Adapted from D. Easton, A Framework for Political Analysis, Prentice-Hall, Englewood Cliffs, 1965.

In order to apply this general model to a specific policy setting, one must specify the various kinds of inputs and outputs. More important, one must attempt to "get inside" the black box, somehow lifting the lid to discover precisely how the conversion process takes place. This task is easier to describe than to perform. Political and other behavioral scientists are frequently ignorant of the invisible processes of influence that are superimposed over the formal channels of decision-making. Moreover, the formal processes may themselves be enormously complex and disorganized. Indeed, students of policymaking can be divided into two schools depending on whether they view the policy process as *rational* or as *incremental* and haphazard by nature. The leading advocate of the incremental approach (Lindbloom, 1968, p. 4) highlights the differences:

> *One is tempted to think that policy is made through a sequence of steps (or a set of interlocked moves), such as: (a) preliminary appraisal of or inquiry into the problem; (b) identification of goals or objectives; (c) canvassing of possible policies to achieve the goals; and, (d) choice or decision. This way of looking at policy making is useful for some purposes, but it tends to view policy making as though it were the product of one governing mind, which is clearly not the case. It fails to evoke or suggest the distinctively political aspects of policy making, its apparent disorder, and the consequent strikingly different ways in which policies emerge.*

The rational model assumes that senior decision-makers can and do specify major goals of the system; that these goals can be arranged in a hierarchy from most to least important; that policies are then formulated to achieve objectives derived from the goals hierarchy; that policies are regularly evaluated against the criterion of cost effectiveness with respect to specified objectives; that a ceaseless quest for more cost-effective programs and policies leads to continual efforts to revise, scrap, innovate; that the technology for undertaking this kind of policy formulation and assessment is available in the planning, programming, and budgeting system (PPBS) first introduced in the U.S. Defense Department during the Vietnam war and since emulated by every government in Canada, including that of Ontario.

A different view of decision-makers emerges from the incremental model. It suggests that decisions are split among areas corresponding to administrative units; that these units are relatively autonomous; that they have internally defined goals

which may conflict with (rather than fit into) an overall hierarchy for the system; that each unit is in close contact with, and heavily influenced by, its client groups; that these groups (sometimes creatures of the bureaucracy) help shape policy to serve their own needs; that the more advantaged a group, the better organized it is; that in return for favorable treatment by the decision-makers, these groups provide information, legitimation, and often more tangible benefits such as later career opportunities.

In the absence of thoroughly documented case studies, it is impossible to determine which model - rational or incremental - better describes alcohol policymaking in Ontario. Probably a mix of both models applies, depending on the issue and the peculiar circumstances of the situation.

The Location of Alcohol Planning in Ontario

In a strict sense it is misleading to speak of Ontario alcohol policy as if it were singular or uniform. Instead of a unified policy regarding alcohol, one finds a "quasi-policy" (Simeon, 1976): myriad different policies - some complementary, some overlapping, some contradictory. Despite the provincial government's efforts to coordinate policy field by drawing together several ministries, chaired by "super ministers" (Szablowski, 1975), alcohol-related policies emanate from ministries as diverse as Health, Education, Attorney General, Parks and Recreation, and Consumer and Commercial Relations. The absence of a coordinated alcohol policy reflects more than bureaucratic complexity. To be sure, thorough coordination of the various alcohol-related activities of ministries and agencies would require a great deal of reorganization and the establishment of new structures. Maintaining *lack* of coordination, however, has permitted the government to keep the revenue side of the alcohol equation separate from alcohol-related expenditures (see chapter 4). Health expenditures, for example, fall under the Ministry of Health, which is located in the Social Development policy field. Alcohol revenues on the other hand are funneled through the Ministry of Consumer and Commercial Relations, which is located in the Justice policy field. Thus even if the policy-field committee structure worked effectively, the existing formal structure would fail to "rationalize" alcohol policy and force the juxtaposition of alcohol-related revenues and costs.

Although many ministries have involvement in alcohol-related policies, the task of administering the major legislation concerning alcohol has been given to two government agencies. The Liquor Licence Board of Ontario (LLBO) regulates on-premise consumption, while the Liquor Control Board of Ontario (LCBO) regulates off-premise alcohol sales (approximately 85% of alcohol sold in Ontario). These two boards were established after the Second World War as Ontario moved toward more liberal alcohol policies.*

A third alcohol-related agency is the Addiction Research Foundation, whose evolution has already been described earlier (chapter 8). Without recapitulating the material presented there, it is worth noting that before the first "Alcoholic Research Foundation" bill was introduced to the legislature to permit allocation of funds directly to the Foundation, the salary of director-designate H. David Archibald was paid through the LCBO budget; his title was Director of Research for the LCBO. Although this arrangement was chosen merely for administrative convenience, the notion of linking together concern with addiction and alcohol control policy has been deliberately institutionalized in Finland, with the predictable result that Finnish alcohol policy includes a health component. In Ontario, on the other hand, the divorce of these two concerns has had several results:

1. To judge from its Annual Reports, the LCBO appears to have shifted its emphasis from "liquor control" to marketing concerned primarily with increasing sales.
2. From the government's perspective, LCBO's revenue-generating capabilities are of considerable importance. This fact was formally acknowledged when ministerial responsibility for the agency was shifted in 1973 to the Ministry of Consumer and Commercial Relations.
3. From the perspective of the alcohol industry, maintaining good relations with the LCBO has become a vitally important aspect of marketing strategy.
4. ARF has taken a minor role in influencing policy, by and large eschewing direct policy intervention, leaving the field to the alcohol-promotion interests

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* Although a thorough study of the origins of LCBO and LLBO remains to be undertaken, two scholars have suggested that an agency structure was chosen in order to deflect possible criticism of day-to-day alcohol policy away from politicians. See Silcox (1975, p. 147); Schindeler (1969, p. 72). See also Single et al. (1980).

and to those few declining outside groups that speak for moderation and conservatism in alcohol policy.

The Political Culture of Alcohol Policy

Even more fundamental than identifying the "actors" and their interrelationships in a policymaking model is describing the political culture within which the interactions take place. Political culture consists of the values, attitudes, and beliefs that shape perceptions and condition political action. It serves as a filter through which political events and activities pass before they are interpreted or acted upon. It is an important aspect of what Simeon (1976, pp. 555-56) calls the "political framework" - the constraints and opportunities defined by "the broad social and economic environment, the system of power and influence, the dominant ideas and values in society, the formal institutional structures." This framework "greatly restricts the alternatives [policymakers] consider and the range of innovations they make."

With respect to alcohol policy, one must ask: How do members of the political elite, other opinion leaders, and the general public perceive the problem of alcoholism? What other problems of alcohol abuse are they aware of? What importance do they assign to these? In light of perceptions of alcohol problems, what solutions do they view as appropriate? To what extent do they believe that government must help solve the problems created by alcohol abuse? (Attitudes on this last issue will reflect broader beliefs about the role of government in society as well as notions about specific problems and the capacity and legitimacy of government intervention to bring about changes.) Finally, what positive benefits are seen as derived from alcohol and from the alcohol industry? To what extent do individuals weigh the benefits against the costs in arriving at conclusions about regulatory policy and other forms of government intervention?

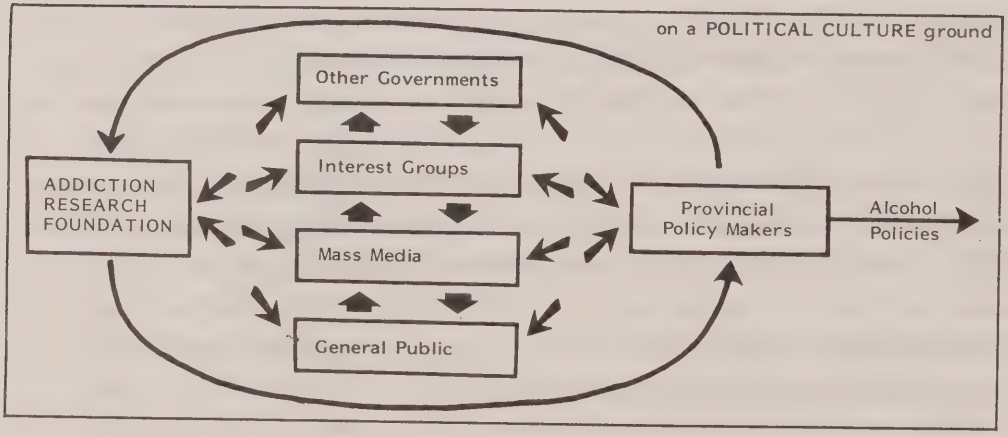
An earlier section of this report (chapter 6) indicated that beliefs and other aspects of the common stock of knowledge about alcohol will condition responses of both policymakers and the general public to alternative regulatory measures. The political culture of alcohol was summarized under four "ideologies": moralistic, disease, integration, availability.

A previous section (chapter 5) also summarized data related to the public's perceptions of alcohol-related problems and possible policy responses. Later, we will incorporate these and other aspects of the alcohol political culture into our analysis of considering the roles played by the various "actors" in the policy process.

Alcohol Policy Process in Ontario - A Model from ARF's Viewpoint

The model shown in figure 18:2 modifies Easton's black box model by specifying the major sources of input to the alcohol policy process: other governments, interest groups, the mass media, and the general public. These groups may also interact among themselves. Furthermore, the model shows ARF as a primary actor capable of interacting with the other "intervening" actors (although subject to various forms of feedback from them) and also able to interact directly with provincial policy-makers. Interaction takes the form of diverse exchanges or communications, written or verbal, formal or informal. Finally, political culture is a background variable.

Figure 18:2
A Model of the Alcohol Policy Process
in Ontario from ARF's Viewpoint



The model illustrated in figure 18:2 can be used to suggest alternative intervention strategies available to ARF in encouraging the adoption of "appropriate alcohol control policies." Given the existence of five major actors with whom ARF might interact, and through whom new policy thrusts might be channeled, a large number of permutations of actors/channels is possible. Not all such possibilities are, however, equally promising; we will consider only three, commencing with the most elementary (from the perspective of number of actors), adding to this basic model in discussing more complex alternatives. We will also be integrating conclusions derived from the research reviewed in earlier chapters.

Strategy #1: ARF →→Policymakers →→Alcohol Policies

The model in figure 18:2 assumes that, no matter what the intermediate channels, the source and targets of influence are respectively ARF and "policymakers." Therefore, the most elementary model involves ARF's interacting directly with policymakers. First we must examine who makes policy and how they are influenced. In American politics, elected congressmen and senators play a major role in the legislative process, and, as a result, interest groups devote considerable energy to lobbying politicians. (See, for example, Presthus, 1974, p. 255 et passim.) By contrast, studies of the policy process in Canada demonstrate that senior civil servants tend to dominate policymaking.

In Ontario specifically, elected members usually play only a moderate role in the policymaking process. (See, e.g., MacDonald, 1975.) In a survey conducted in 1970-71, Leduc and White (1974) found that only 15% of Ontario legislators (excluding cabinet ministers) felt they had "much" influence on policy formation, whereas 26% felt they had "none." The remainder (59%) believed that they did have "some" influence. One channel for exercising this influence was through "talks with cabinet ministers," which 90% of the respondents reported as taking place "often" (69%) or "sometimes" (21%); most of the respondents felt their views were "considered by cabinet members" often (43%) or occasionally (41%). As expected, contact with cabinet ministers is much more common for government backbenchers than for opposition MLAs.

Other policy-relevant activities of MLAs include asking questions in the legislature during question period, speaking in debates, and introducing private members' bills. A survey conducted in 1972 (Clarke, Price, and Krause, 1976, pp. 230-31) found that backbenchers' participation in these activities varied considerably, showing important differences between government and opposition MLAs in terms of their role perceptions (see table).

Ontario MLA's Legislative Activities by Party

		PC	LIB	NDP
# of questions asked in last session question period	0	56.7	14.3	7.1
	1-10	33.3	0.0	14.3
	11 or more	10.0	85.7	78.6
# of times spoke in debates in last session	0 - 5	80.0	0.0	15.4
	6 - 10	10.0	15.4	0.0
	11 or more	4.0	84.6	84.6
# of private members' bills introduced as a legislator	0	50.0	21.4	21.4
	1 - 4	40.0	35.7	21.4
	5 or more	10.0	42.9	57.1

(Clarke et al., 1976)

A subsequent survey (including cabinet ministers) undertaken in 1973 revealed other differences between government and opposition members with respect to views about their policymaking role, styles of representation, and attitudes toward party discipline and the role of party caucus (Fletcher and Goddard, 1978). The authors concluded that "where a legislator stands on issues germane to the legislature and its operation as a representative assembly is likely to reflect in significant ways where he sits in the House" (p. 667). Caucus plays a different role for government and for opposition parties: the vast majority of both ministers and government backbenchers see their caucus as a setting in which leaders explain policy and backbenchers present their views. Government backbenchers thus have an opportunity to voice concerns about policy matters in caucus meetings and also in informal discussions with cabinet ministers. Although their views are taken seriously, nevertheless their input is only one of many factors taken into account. Usually they can only affect the general drift - seldom the specific details - of

policy (MacDonald, 1975). By contrast, opposition parties use caucus to plan party strategy, and opposition MLAs can affect policy by asking questions of ministers during question period. These incidents can be effective particularly if the media publicize the issue.

Most MLAs devote their attention to constituency problems and are oriented primarily to matters of local concern (MacDonald, 1975; Leduc and White, 1974; Clarke, Price, and Krause, 1976; Fletcher and Goddard, 1978). Furthermore, not all are active in the legislature, as data above indicate. Nevertheless, a recent study gives more credence to the view that MLAs can be effective in certain policy areas. According to Atkinson (1980), about one-third of Ontario MLAs see themselves as policy facilitators who serve as a communications link between government policy-makers and interested outside groups. An even larger group (42.3%) viewed policy initiation - i.e., active promotion of personal ideas and selected causes - as central to their role. There is some evidence that these activities have an effect. A comparison of the lobbying activities of physiotherapists and chiropractors in Ontario showed that the latter group had much greater effectiveness than the former, even though the physiotherapists used classic techniques of lobbying senior officials while chiropractors lobbied politicians (Boase, 1980).

Whether these findings can be extended to alcohol policy is uncertain. The debate on alcohol-related issues has been poorly informed. Few members of the Ontario legislature have ever indicated in speeches in the legislature that they are familiar with current research in the area.

Notwithstanding backbenchers' professed interest in policy initiation, most important questions are decided in settings quite removed from the legislature, or else they appear in the legislature as "packages" already prepared by civil servants and modified by cabinet committees. Parliamentary standing committees do not have the legislative or investigative impact of their U.S. congressional counterparts.*

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* Ontario does, however, have "a strong tradition of effective and influential select committees" (Atkinson, 1980, p. 67). Occasionally select committes have been set up to discuss alcohol-related issues, as was the case of the committee on youth which made a number of policy recommendations about youth-related issues. To date only two of these recommendations have been implemented.

The Standing Committee on Procedural Affairs, which reviews annually the activities of the LCBO, may serve as a useful target for ARF's advocacy efforts.

Even the situation of a minority government does not greatly alter the power equation: most policy continues to be formulated by senior civil servants and cabinet members. Indeed, the alarming weakness of the legislative branch of government led to the appointment in June 1972 of the Ontario Commission on the Legislature to investigate "the decline of the Legislature as an institution of unchallenged strength and independence" (quoted in MacDonald, 1975, p. 95). Although several recommendations of this Commission were ultimately accepted, and funds have been provided for research assistants to the opposition parties, the basic distribution of power and influence appears to be unchanged.

If not MLAs, who are the major actors in the policy process? The complexity of policy formulation is characterized in terms of nine stages introduced in response to recommendations of the Committee on Government Productivity (COGP) set up in 1969 (Szablowski, 1975):

1. *Policy development or initiation.* The problem or issue to be dealt with must be identified and related to priorities and guidelines established by the policy and priorities board of cabinet. It must then be channeled through one of the three policy fields (justice, social development, resources development) or TEIGA (Treasury, Economics, and Inter-Governmental Affairs), which concerns itself with primarily fiscal and tax matters. Normally, this stage will be dominated by the policy development unit of the initiating ministry.
2. *Study and Report.* Usually carried out by a committee, task force, or royal commission, this stage attempts to examine the issue comprehensively and relate it to existing policies and programs.
3. *Examination of the fiscal, economic, and intergovernmental consequences of the proposed policy.* This stage is carried out by the relevant unit of the TEIGA secretariat.
4. *Examination and estimate of the necessary resources which will have to be allocated if the proposed policy is approved and implemented.* This assessment is done by the management board secretariat and is reported to the policy priorities board.
5. *Substantive examination of the proposed policy within the terms of reference and priority perspective of the appropriate policy field committee.*

Recommendation is made back to policy and priorities board.

6. *Strategic examination and final approval.* Once again policy and priorities board dominates this stage.
7. *Formal confirmation by full cabinet.*
8. *Policy and program evaluation.*
9. *Termination of ineffective, unnecessary, dysfunctional, or outdated policies and programs.*

For certain policy changes legislative approval is needed. The various phases of this approval would be inserted between stage 7 and stage 8 above.

The COGP reforms attempted to change the informal, uncoordinated, and often highly personal activities leading to policy decisions into a formal policy process. Nevertheless, the new formal process, superimposed onto the earlier system, has never totally supplanted it. Furthermore, several of the reforms introduced earlier have since become moribund: for example, TEIGA (Treasury, Economics, and Inter-Governmental Affairs) was broken up in 1978; and the original plan to keep policy field secretaries free of "line" responsibilities for actual ministries was soon abandoned. Hence informal processes frequently supersede or effectively bypass the procedures described above. Intervention in the policy process requires attention both to the formal niceties of the nine stages and to the informal points of access and the capacity of certain individuals to supersede the formal process.

Accompanying this rationalization has been an increasingly frequent shifting of ministers and senior civil servants, which has made it difficult for ARF to establish effective working relationships with the relevant individuals. By the time they have acquired knowledge of ARF findings and views, they are transferred. ARF must accordingly put greater emphasis on relations with senior and middle-level civil servants, who tend to stay in the same ministry much longer than ministers themselves.

The attempt at rationalization of the policy process has also had a significant impact on interest group activities. Aucoin (1975) argues that because policy alternatives are examined across a broad range by interdepartmental committees,

pressure groups have been forced to become more visible and to employ more professional lobbying techniques: well-researched briefs are needed to augment personal contact with a few key individuals. The professionalization of lobbying has affected alcohol interest groups in predictable ways. In the early 1970s both the brewers and the distillers began to produce policy documents based on quantitative research conducted under contract by various specialists.

To summarize:

1. Policy is not made by elected politicians only: while backbenchers have considerably less influence on policy than cabinet ministers, senior civil servants and other members of the bureaucracy are often heavily involved in policy formulation; and while the pattern of policy formulation includes certain formal processes sometimes supported by informal arrangements, successful policy intervention is a delicate mixture of rational input and personal contact with key individuals. Therefore, the Foundation should explore linkages with different groups that have a role in the policy process.
2. Emphasis should be placed on cabinet ministers and senior government officials, although in some instances backbenchers can significantly influence policy.
3. Some degree of liaison should be maintained with at least a few members of each caucus, particularly those who are members of the Standing Committee on Procedural Affairs or any select committees investigating alcohol-related policy issues.
4. ARF could have influential cabinet allies who either have personal reasons for concern with alcohol problems or have a basic empathy toward the moderation approach.
5. ARF should develop better linkages with key senior administrators at the Deputy or Assistant Deputy Minister level.

Strategy #2: ARF →→ Mass-Media/Opinion Leaders →→ Policymakers →→ Alcohol Policies

A second strategy involves ARF's influencing mass-media and opinion leaders who in turn influence policymakers.

In attempting to assess the political role of the mass media, Munton and Clow (1979) put forward three alternative models.

1. *Democratic Model* - According to this conception, the mass media serve both as a device for conveying public concerns to policymakers and as a shaper of public opinion.
2. *Media Manipulation Model* - This model argues that the monopoly position of the mass media gives them even greater power than in the democratic model to determine public opinion and to exert a preponderant influence on policy-makers. In the words of a noted student of the mass media, "it has increasingly seemed as if it is the mass media which set the agenda and define the problems on a continuous, day to day, basis while political parties and politicians increasingly respond to a consensus view of what should be done" (McQuail, 1977, p.89).
3. *Complex Interaction Model* - Munton and Clow reject both the above models as too simplistic, and instead propose a much more complicated relationship between (1) amount of attention focused on an issue by the media, (2) bureaucratic activity, (3) legislative activity, (4) policymaking activity, and (5) policy output. They de-emphasize the role of public attention or input of public opinion, assuming that media attention serves as a surrogate for (or indeed determinant of) the latter. Using data on Canadian International Environment Policy for the period 1960-1975, they found that media attention was highly correlated with legislative activity (as measured through content analysis of Hansard debates), but rather weakly (perhaps even spuriously) correlated with bureaucratic activity, policymaking, and policy output. They concluded that the media seem to have considerable effect on MPs, who rely on the media for information on issues beyond their rather general expertise. As for policy specialists, however, the media do little more than provide senior officials with a "weapon which they could employ in gaining intradepart-mental, interdepartmental, and ultimately Cabinet acceptance" of their policy proposals (Munton and Clow, 1979, p. 33).

Apart from the work of Munton and Clow, few systematic data are available on the

political impact of the mass media in Canada.* Bell and Fletcher (1979) carried on a three-year study, "The Mass Media and Transportation Policy," which involved interviews with officials in Transport Canada to determine their use of and attitudes toward the mass media. Their findings tended to confirm Munton and Clow's conclusions: the media are not seen by technical experts as a useful source of information about matters within their expertise; they are, however, seen as barometers of public opinion, and perform an important agenda-setting function - if not shaping the content of what the public think, at least providing a focus for what they think about. This public-opinion-formation role is critical, especially for politicians who rely on the media as background to the public debates in Parliament. Bell and Fletcher's interviews showed that 58% of the respondents to their questionnaire stated that one reason for reading the news extracts** was "to be informed of the most current affairs that may receive attention, later on the same day, from the minister, the House of Commons, or your own office/department/division."

Notwithstanding these qualifications, the media do inform policymakers about activities in areas outside of their specialty. Of all the reasons given by officials for using the news sources, approximately two-thirds mentioned reasons that involved gathering information or becoming informed either about public controversy, policy announcements, or the details of conflict, or about affairs that affect other departments, agencies, regions, or groups with which they are in contact. As for the perceived reliability of the media, again many officials regard the media as but one of a number of possible sources, and not necessarily the most reliable.

The officials who responded to Bell and Fletcher's questionnaire reported contacts with a variety of general and special "publics," including business, federal agencies,

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* A similar lacuna is found in research in the United States. According to a recent review of the literature, there are relatively few studies that have examined both media and government. Consequently, "there is relatively little research that can give us a better understanding of the relationship between these institutions" (Rivers, Miller, and Gandy, 1975, p. 217).

** The news extracts are a compilation of clippings from major Canadian dailies and transcripts of electronic media reports prepared, indexed, and distributed daily to Transport Canada officials.

and organized labor. Direct contact with the media was relatively infrequent compared to contact with business, federal agencies, and even provincial or local agencies. Clearly the media and their representatives provide only a part of the respondents' information about public opinion. Indeed, a small majority (51%) of the respondents denied that the media provided the most reliable information concerning public reaction to and opinion of government policies.

Finally, recent research provides further confirmation that media elites (i.e., top executives of newspapers and news managers of TV networks) interact with various members of the political elite only infrequently. (See table below.)

How frequently do you (member of the "media elite") come into contact with:

		More Than Once/Month	More Than Once/Year to Once/Month	Less Often
a.	Federal Cabinet members	18%	37%	45%
b.	Other M.P.'s	27	54	19
c.	Federal Deputy Ministers	4	31	65
d.	Other high level civil serv. of the Fed. Gov't.	13	37	50
e.	Prov. Cabinet members	19	42	39
f.	Other M.P.P.'s	27	50	23
g.	Prov. Deputy Ministers	3	35	62
h.	Other high level civil serv. of Prov. Gov't.	4	38	58

Note: This table is based on only 26 cases of media elite members interviewed in connection with the Quality of Life Study, Institute for Behavioral Research, York University, in preparation.

The various findings above suggest that trying to use media leaders as a go-between to reach policymakers directly is less likely to be effective than lobbying media

leaders to change media coverage and thereby influence policymakers indirectly.

In pursuing such a strategy in Ontario, it is essential to recognize the preponderant influence of the *Globe and Mail*, a fact noted by every student of the Canadian mass media. Bell and Fletcher found that despite the large number of sources searched in the process of preparing media excerpts, the *Globe and Mail* is by far the source most frequently included in Transport Canada's news clippings. Munton and Clow (1979, p. 20) observe, "Certainly of Canadian newspapers, and perhaps of all Canadian media sources, electronic or printed, the *Globe and Mail* is the most influential among both politicians and civil servants." Electronic media tend to take their cues from print media, and either paraphrase newspaper stories or occasionally (in hotline or radio interview shows especially) follow up items appearing in the newspaper. Hence a major editorial or news story in the *Globe and Mail* can serve to set the agenda not only for policymakers but also for other media sources as well.

If the *Globe and Mail* appears to be the most influential newspaper among policymakers and opinion leaders, large-circulation local dailies probably have the greatest impact on the general public. This point is particularly important with respect to mass attitudes toward alcohol - reactions to changes in price and availability, perceptions of the costs and benefits of alcohol to society, and to a lesser extent awareness of personal hazards of alcohol use. In a thorough review of press coverage of the controversy over alcohol policy in Ontario from 1966 to 1975, Simpson (1980) found that the press frequently attacked ARF policy recommendations as elitist or too restrictive. In an interview, a former high-ranking member of the Ontario government expressed the view that media opposition to various control measures (including price increases) gave a false picture of public opinion but nevertheless served as a major incentive to further liberalization.

In summary, therefore, ARF's use of the mass media to reach policymakers should take account of the following conclusion: Much research indicates that the mass media's handling of issues has an impact on politicians' and senior civil servants' perceptions of public opinion but apparently little or no direct impact on their own opinions. Nevertheless, it may be useful to monitor media coverage of alcohol-related issues with a view to detecting trends in coverage and emphasis.

Strategy #3: ARF →→Mass-Media/Opinion Leaders→→General Public →→Policymakers →→Alcohol Policies

The third and most elaborate strategy introduces the general public into the process of influencing the policymakers regarding alcohol policies.

Of the many techniques available for influencing the general public, the commonly favored one involves use of the mass media. Chapter 13 reviewed and discussed some of the more salient findings related to the impact of the mass media on the general public. The overall conclusion from this review was: In general, *neither the research evidence nor the actual programs reviewed would justify a large-scale investment of resources by ARF in a mass public education campaign directed at the public of Ontario.* There are three reasons for this:

1. *Mass-level, direct intervention using mass media is not cost-effective for a publicly funded health agency.* The resources necessary to challenge the alcohol interest groups on their own ground (i.e., commercial advertising) would far exceed the total budget of the Addiction Research Foundation. Moreover, these resources would need to be committed on a continuing basis for at least a 10-to-20-year time frame in order to have any substantial impact.
2. *The evidence indicates that mass media are useful and effective in causing small-scale attitudinal shifts only.* There is no evidence that the mass media alone could affect behavior in substantial and lasting ways.
3. *Much of the research evidence necessary to justify a decision of such magnitude and scope is not yet available.*

Health promotion agencies have been guilty of expecting too much from mass public education strategies. There is some evidence that this over-optimism has been tempered in the fire of experience. Certainly there is no good reason for ruling out experimental, small-scale programs using the media to influence awareness and public attitudes.

The evidence also indicates that the media can establish a context which may

potentiate the effects of other kinds of public education strategies. The evidence from communication research indicates that there are some established principles which should not be ignored in any attempt at public education.

1. *Exposure to the message or messages must be assured* through careful consideration of audience/target-group characteristics.
2. *Attention to the message must be assured* through the use of appropriate media, communicators, and message content.
3. *Acceptance of a message is aided by (a) credible sources, (b) concise and simple content, (c) motivation, arousal, and entertainment value, (d) repetition, and (e) social/interpersonal support.*
4. *The probability of behavior change is enhanced by message strategies that provide explicit instructions for change.*
5. *The probability that behavior change will be lasting is improved when a socially supportive environment reinforces the change.*

Chapter 5 reviewed the research related to public perceptions regarding alcohol problems and possible government interventions. It was found that Ontarians are not greatly concerned about health problems (in contrast, for example, to economic problems), although they do identify alcohol as playing a major role in causing those health problems that do exist. They are, moreover, generally conservative in their opinions regarding alcohol regulatory/control policies and supportive of the status quo in this regard; with respect to some existing and possible policies, Ontarians are extremely supportive. This evidence suggests that among the population at large there is fertile ground for fostering support for existing and newer policies; with respect to some subgroups, however (e.g., young male drinkers), and some policies (e.g., pricing), the research indicates that more education/persuasion would be required before such measures were supported. Reviews of the impact of the mass media indicate that they could, if properly used (with adequate planning, development, and resources), assist in producing the awareness, understanding, and opinion change necessary for such support. It is unlikely, however, that the mass media could themselves persuade the public to act in support of ARF's alcohol policy position.

Research on political participation indicates that the public in Ontario rarely takes an active role in policymaking. The only major study of "interacting with government" (Hoffman, 1975) reports that Ontario residents are "below average in political knowledge, at least when it is measured by questions dealing with awareness of which level of government has jurisdiction over a number of policy areas" (p. 277). Most Ontario residents do not know their MLAs very well, and are generally unaware of provincial political issues and orientations. Over 80% of those who have had up to grade 13 education report that they have never attempted to influence the political system. Although a larger percentage of those with post-secondary education report that they have attempted to do so, the percentage is still less than half, and fewer than 10% report that they regularly contact their MLA by letter or phone. Thus Hoffman concludes, "only a relatively small proportion of the electorate is well informed about politics and active in the process, and in this respect, people of higher than average education, social status and income are the most inclined to participate in the political system and to take advantage of the representative institutions that exist" (p. 290).*

Hoffman suggests that one reason for this low level of participation and interest in politics may be the success of interest groups in conveying the wishes of the mass public to policymakers. He notes, however, that interest groups tend to represent the interests of precisely that same group (the wealthy, the well established, the high status) who are individually more politically active and efficacious. By contrast the least advantaged segments of society tend also to have the least amount of representation through interest groups. Thus the political process is given over to the established groups in society, and to the high-status individuals in whose name they speak. Exceptions to this rule can be found, however. Less powerful pressure groups can be effective if the circumstances are favorable - for example, if they receive widespread media coverage and if they manage to gain support from political party members, especially government party members. On

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* Hoffman's study of Ontario complements other studies of political participation in Canada. The most recent review (Mishler, 1979, p. 156) reaches the conclusion that on average, Canadian citizens "display little interest in or awareness of politics and political affairs; manifest relatively strong feelings of political cynicism, alienation, and political incompetence; . . . [and are] poorly prepared for democratic participation and uncertain of [their] abilities to cope with the complexities of what seems at times an alien environment." A carefully orchestrated campaign of letter writing or telephone calls to policymakers can be very effective, however.

the whole, however, stronger interest groups, using quiet tactics and maintaining low visibility, tend to prevail.

Although the general public tends to have little active participation in the political process, it does affect policy in a passive way through what is called public opinion. Favorable public opinion for government or party policies is seen as one of the major "supports" identified in Easton's model of the political process (see figure 18:1 above): to the extent that this public support can be "delivered," a major source of influence exists within the political system.

A popular definition of public opinion is "the sum of individual opinions of citizens about political issues." Students of public opinion usually distinguish between spontaneous and extracted opinion (i.e., opinion actively expressed or opinions extracted via a survey or similar mechanism), and between informed and uninformed opinion. Often opinions can be extracted from people who are woefully uninformed about the issues or personalities discussed (Van Loon and Whittington, 1976, p. 90).

Public opinion is both created and conveyed, through media coverage of the issues and media attention to events, but not all public opinion is presented through the media. Increasingly, governments have turned to surveys as a way of determining mass attitudes and beliefs about policy-relevant issues. Problems remain in how to interpret poll results, how to assess the findings, how to estimate the strength and intensity of feelings people express in response to survey questions, how to discount uninformed opinions, and how to extrapolate from opinions to behavior. To supplement survey data, the government sometimes relies on public meetings or on less formal feedback through members of the caucus, from the "grass roots" of the party organization and the general public. Surveys, however, have the advantage of giving representative findings that can better predict the distribution of attitudes and beliefs in the population.

Both government-sponsored and ARF-sponsored surveys (see chapter 5) indicated that there is no public clamor in Ontario for further liberalization of liquor laws - for example, regarding increased availability of outlets or extended hours of sale for off-premise use. These results could even be viewed as evidence of support for cutting back on liberalization policies adopted during the last few years.

Consideration of the role of the general public and how it might be influenced within the policymaking process leads to the following conclusions:

1. With respect to influencing the general public it was concluded that:
   a) Large-scale media education or advertising campaigns would not be cost-effective for ARF.
   b) With adequate planning and resources, the media might be used to develop supportive opinion change, though behavior change is unlikely to result from such effort.
2. The general public in Ontario rarely takes an active role in the Ontario policymaking process.
3. Nevertheless, the general public can be influential in a number of ways:
   a) when an articulate minority are willing to devote time and effort to making their feelings known to their elected representatives;
   b) when their opinions are expressed through public opinion surveys.
4. The general public is currently not in favor of further liberalization of alcohol policies; nor is it supportive of all possible control policies - for example, of a policy which involves raising the price of alcohol.

Interest Groups

Cutting across and interacting with all possible strategies is the influence of interest groups on policymaking. Despite the size and prosperity of Ontario, remarkably little work has been done on the role of interest groups in provincial politics. In the late 1960s, however, Presthus conducted a major survey of American and Canadian politicians, bureaucrats, and interest group directors. In addition to studying the federal level, Presthus carried out surveys in three American states and three Canadian provinces, including Ontario. His are the only survey data of this kind available.*

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* In approximately one year, data from the Quality of Life Study being conducted by several York University researchers will be published. A small study of MLAs' views on alcohol policy was conducted in 1977 by Ferrence and Brook. Results are reported in Ferrence and Brook, *Attitudes of Members of Provincial Parliament Regarding Control Policies of Beverage Alcohol: A Research Note and Implication for ARF Programmes.* ARF researchers proposed a major study of the Ontario political elite as an aspect of the larger mass attitudes to alcohol study;

Although Presthus's data are now too old to serve as a reliable guide to present-day patterns of interest-group activity, a number of his findings are probably still valid. For example, Presthus laid to rest the myth that Canadian interest groups focus most of their lobbying efforts on elected politicians. Good lobbyists know that considerable power lies with the cabinet and the bureaucracy,* and they act accordingly. Presthus was also able to conclude that wealthy interest groups tend to be quite effective, for they can afford to fund ongoing lobbying efforts and hire full-time lobbyists. A subsequent review by Hoffman (1975, pp. 286-87) confirms this point, emphasizing the importance of establishing "regularized relations with government" and arguing further that for the most successful interest groups these relations generally take the form of "quiet negotiations of an essentially bureaucratic nature with low political visibility." Occasionally other high-profile tactics are employed, but such instances usually indicate that the quieter approach has for some reason failed. As Pross (1975, p. 19) states:

> *The Canadian political system . . . tends to favour elite groups, making functional accommodative, consensus-seeking techniques of political communication, rather than conflict-oriented techniques that are directed towards the achievement of objectives through arousing public opinion.*

Pross does point out, however, that not all interest groups are alike. He provides a useful typology that arranges interest groups along a continuum from "institutionalized" to "issue-oriented." The latter are often organized around a single issue, generally feature loose organizational structures, rely heavily on volunteers, and are more likely to use confrontation tactics. In contrast, institutionalized groups generally exhibit the opposite features.

An impressive array of groups form what might be called the alcohol-promotion lobby. These interests can be organized according to their involvement in the

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however, the proposal was dropped. In addition to Presthus's two books (1973 and 1974), the major works on interest groups in Canada are Pross (1975) and the review by Thompson and Stanbury in Schultz et al. (1979).

* Hoffman (1975, p. 285): "Although interest groups have been around for some time at the provincial level [in Ontario] . . . their character and numbers have been affected by . . . the concentration of political power in the hands of the executive and especially the bureaucratic sectors of the government."

beverage alcohol industry:

1. Organizations whose important source of income is the production, sale, distribution, and/or consumption of alcoholic beverages. All of these groups advertise and promote their products. Each is dependent for its continued success on continuing sales. Accordingly, they cannot be expected to support regulations which they perceive as reducing their income. These organizations include: brewers, distillers, wineries; importers and distributors of foreign alcohol products; retailers (on- and off-premise).
2. Suppliers, promoters, packagers, transporters, and general economic ancillaries of the industry, such as primary producers (wheat, barley, corn, grapes, hops); bottlers and packagers; transporters; advertising agencies.
3. The hospitality industry. Even those not directly involved in beverage sales might strongly oppose any attempts to reduce or restrict current retail practices. Indeed, the current general thrust of the tourism lobby is toward greater liberalization.
4. Various government agencies responsible for such areas as revenue, agriculture, industry and tourism, culture and recreation, and labor. Although government must continue to be seriously concerned with the health costs of alcohol abuse, the reality is that there are contending pressures: the revenues obtained, the industries potentially affected, the growth of employment, and the protection of agriculture compete with concerns in the areas of health, transport, and social welfare for alcohol-related problems. It can be expected that the policy and program staff of government areas affected by a restrictive policy on alcohol will not be supportive of such measures.
5. The commercial mass media in the degree to which they are supported by alcohol advertising.

Little research has been conducted on the policy-related activities of alcohol-promotion groups, but the groups themselves on the whole appear well established. Like most powerful interests, their network of influence is vast.* Their techniques

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* Nevertheless, recent changes in the Election Financing Act prohibiting large donations from corporations to political parties may erode some of the political influence of the alcohol industry. Furthermore, because of rivalries between manufacturers of different alcohol beverages, the lobby has not been capable of

of influence include highly professional lobbying practices carried on by full-time professionals.

By contrast, groups opposing alcohol liberalization are weak and disorganized. Lacking a base in industry or commerce, and therefore unable to cast their arguments in the persuasive terms of employment or revenue, such groups have had relatively little impact on decision-making in recent years. Several decades ago, Ontario policy was almost dominated by the traditional conservative values of the rural districts. Increasingly, political power has shifted to urban settings; and, more significant, urban attitudes and values toward alcohol have spread to rural areas as well.** Hence even rural-based politicians have felt less pressure to oppose liberalization policies. For this and other reasons, the political clout of temperance groups, and of the one or two church-based alcohol-abuse "concern groups," is now minimal.

Although the alcohol-promotion groups are strongly linked to the mass media through advertising, they seem to have lost much of their effectiveness with provincial politicians. The changes in the Election Financing Act have largely severed the previous close ties between the lobby and politicians.

Advocacy - ARF's Role

Each of the strategies discussed in the preceding sections entails a more active role than in the past for ARF in the policymaking process. In theory, public policy emerges from the interplay of contending interests. In practice, the value of health (however self-evident to members of the health professions) is poorly supported by interest groups. This is not to argue that health is the only, or perhaps even the highest, value in society. However, for ARF to avoid health advocacy increases the

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concerted action on all policy matters. Indeed, at various times, different members of the lobby have endorsed ARF recommendations.

** The 1974 ARF Survey shows the results of this trend very clearly. In response to a question about views on the number of locations for on-premise alcohol consumption, approximately the same proportion of respondents in rural, semi-rural, and urban communities thought the number of locations available was "satisfactory" or too small. *Fewer* rural than urban respondents felt there were too many locations. ("Social Policy and Alcohol Use Survey" Vol II, Table 30, p. 116.) Unfortunately, comparable data on attitudes in the 1950s and 1960s are not available to permit longitudinal analysis.

likelihood that the policy process will be dominated by the alcohol-promotion interests, particulary the distillers, brewers, primary producers, and allied groups.

A major benefit, therefore, that ARF can realize through a more active role in policy advocacy is the enhancement of the value of health (to which the agency is by definition committed) in the overall value competition affecting alcohol policy. In contrast to such policy areas as energy development, the major research expertise is located in the Foundation, rather than in private enterprise. This expertise entails both greater opportunities and greater responsibility for the development of cogently and persuasively presented recommendations.

An expanded policy advocacy role will involve important risks for ARF. The rather delicate legitimacy of the organization will be endangered.

Policy Advocacy: Legality vs. Legitimacy

It has been argued that ARF is legally mandated to engage in educational activities. The current ARF Act states that the objects of the Foundation include "the dissemination of information respecting the recognition, prevention and treatment of alcoholism and addiction." In interpreting this clause, ARF has placed emphasis on the term "prevention," an objective which in Ontario is unique to ARF, inasmuch as it is not mentioned in the charters of other Ontario health foundations. If one defines the terms "dissemination" and "information" broadly, policy advocacy appears as a possible, and perhaps even necessary, extension of ARF's education role, crucial to effective prevention of alcohol abuse.

Nevertheless, the legitimacy of such a role, or what others have called "political feasibility," is more ambiguous. Legality defines what is possible under the law. Legitimacy determines what is acceptable or feasible given prevailing attitudes, beliefs, and political forces. It is here that questions arise about the nature and extent of ARF's involvement in policy advocacy.

The legitimacy of ARF's engaging in policy advocacy is in some measure a function of its style of operation. Notwithstanding its legal mandate as set forth in the Act,

the Foundation might damage its legitimacy in the eyes of politicians, the industry, and perhaps the general public if it engaged in certain advocacy techniques. For example, offensive techniques might include using scare tactics or deliberately setting up political meetings intended to embarrass politicians by asking them sensitive questions about their views on alcohol policy. Another "delegitimizing" technique (as far as government is concerned) might be to brief members of the opposition about findings or recommendations withheld from the government or to make politically embarrassing public pronouncements without the courtesy of informing the government in advance.

A more active policy advocacy role will also have important internal ramifications for ARF. At the very least, these ramifications will include increased conflict over resource allocations. ARF, like every other institution dependent on government funding, has experienced severe shrinkage of funds. Thus it has been forced to undertake various forms of budget cutbacks in the last few years. The funding is unlikely to improve. If the new policy advocacy initiative is to receive proper institutional support, funds may have to be reallocated from some existing functions or new sources of funds may have to be found.

A second issue that will arise concerns the effect that policy advocacy will have on the integrity and autonomy of researchers in the Foundation. It may be difficult for research that questions prevailing ARF views about alcohol policy matters to gain acceptance in the Foundation.

In an organization characterized by differing research and program traditions, it would be expected that differences in viewpoint would exist concerning the collection and use of scientific data. One such viewpoint holds that the Foundation should "refrain from offering advice especially on matters of policy because the Foundation is a scientific organization concerned with facts and probabilities (where it can exercise expertise) but that on matters of value its judgment is not expert." An alternative view is that the very existence of ARF presupposes major value assumptions; the term "addiction" is value-laden; the mission of ARF is from the outset oriented toward the value of health; and ARF must devote considerable expert opinion to clarifying lest its "factual" research become entirely meaningless. These competing viewpoints will probably continue to co-exist in ARF.

ARF must, therefore, weigh the benefits of policy advocacy against the costs to its internal and external credibility as a scientific-research-oriented organization.

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SUMMARY OF REVIEWS, AND RECOMMENDATIONS

Terms of Reference

The Task Force on Public Education was established

1. *To briefly review evidence concerning the potential of mass educational persuasion to modify attitudes in such a way as to have a favourable impact on public health.*

2. *In light of the above, to consider and advise on the practicality of the Foundation alone or in partnership mounting a program of educational persuasion designed to modify attitudes concerning hazardous alcohol consumption and to create public interest in appropriate control policies.*

The review of evidence was focused on information concerning the potential of mass educational persuasion to modify attitudes toward hazardous alcohol consumption such that public support for alcohol control policies would be fostered.

Review of Evidence

Historical Overview

A historical overview of evidence concerning alcohol problems and solutions in Ontario since the Second World War, reflecting as it did the extent of the liberalization trend in Ontario alcohol distribution and use patterns, led the Task Force to conclude that the Ontario experience has been one of an increasing rate of consumption, a diversification and expansion of outlets, and changes in the character of drinking. Increased per capita rates of licensed on- and off-premise outlets, a major diversification of beverage choices and consumption occasions, the gradual disappearance of traditional urban/rural differences in drinking, and the presence of new immigrants and increased numbers of women and teen-agers in the

drinking population were noted as contributing factors to a rise in alcohol use in the late 1960s and early 1970s. A subsequent moderate leveling-off of consumption rates was considered primarily attributable to changes in economic factors, such that the aggregate amount of alcohol consumed is still believed to be strongly influenced by the price of alcohol in relation to the real income of the potential purchaser.

The Task Force noted some evidence that rates of alcohol-related damage appeared to have leveled off during the latter part of the 1970s, and had been quite closely correlated with rising consumption rates during the earlier period. Accident statistics indicated sharp increases in the 1960s in the proportion of fatal road accidents involving impaired drivers. The Task Force concluded that public awareness campaigns coupled with legislative changes begun in the late 1960s and continued through the decade following have brought about a shift in public focus away from questions of public drunkenness and concomitant public order offenses toward control over drinking and driving. It also found that comparable preventive control programs and public awareness campaigns have not been mounted in the less spectacular area of alcohol-related damage to health.

Economic factors compete strongly with health as a major concern for Ontario residents. Although the evidence indicates that Ontario residents consider alcohol to be one of the more serious causes of health problems, alcohol addiction is not seen to be among the most serious of these problems. Nevertheless, evidence before the Task Force indicated that Ontario residents are generally conservative in their stated attitudes toward alcohol use and would appear to be supportive of some government actions aimed at controlling alcohol availability and dealing with alcohol-related problems. Further, since the majority of Ontario residents tend to be in favor of the status quo, there is no evidence of a general demand for further liberalization in alcohol availability.

The Task Force reviewed four major conceptualizations of alcohol abuse and control: the moralistic ideology; the disease model; the integration model; and the single distribution/availability model. Despite the lack of systematic survey data to clearly identify the conceptualizations held by various segments of the population at

particular points in time, evidence from a variety of sources suggested that widely held, popular beliefs lag some 20 to 30 years behind current theory and research data.

Since policymaking is strongly influenced by the prevalent belief system and since the disease theory is widely accepted (e.g., by both AA and some powerful groups in the alcohol industry), public acceptance of the macro-level availability conceptualization is difficult to attain. Nevertheless, it is possible that the lag between research and prevalent belief will be reduced through fostering greater public awareness and understanding of the availability model.

Mass-Media Persuasion

Underlying the Task Force's Terms of Reference was the assumption that traditional intervention aimed at the individual's alcohol use was less satisfactory than the combination of control policy with mass persuasion. It was also assumed than the mass media could play a significant role in modifying attitudes toward hazardous levels of alcohol consumption and hence could foster public support for appropriate control policies.

In its review of evidence relating to these assumptions, the Task Force concluded that:

1. There are many general models of social influence which have been used by health educators, varying in degree of complexity and specificity. By and large, research evidence necessary to evaluate these models scientifically is not complete.

2. The impact of the mass media in health-oriented alcohol education appears to be limited to influencing awareness and public attitudes. No lasting, substantial behavioral impact has been demonstrated. However, very few programs have been adequately conceptualized or evaluated. Many programs have been too short in duration, not intensive enough, or lacking sufficient focus to affect substantial proportions of their target audiences with the message.

3. It is clear that alcohol education in formal education settings can increase knowledge levels. What is not clear, however, is the relationship between increased knowledge and attitude, belief, and behavior change with respect to alcohol. Findings in this area are mixed and somewhat sparse, but there is at present no solid evidence to indicate that school alcohol education reliably influences drinking behavior. It must be kept in mind, however, that much of the evidence necessary for a confident conclusion regarding impact does not exist at present.

4. The evidence concerning the impact of the media in other health-related areas is no more convincing than for alcohol. Although the mass media can crystallize or support existing attitudes and beliefs, alone they generally produce limited changes in awareness and attitudes. When combined with such approaches as the behavioral skill training incorporated into the Stanford and Karelia programs on cardiovascular health, the media appear to hold promise in altering and maintaining behavior. Whether such programs will have lasting and consistent behavioral effects, and whether they are generalizable to the alcohol area, remains to be seen.

5. Many other health agencies have ongoing and energetic public education programs. It appears that the mass media are used to increase awareness and public concern about health problems but not necessarily to produce changes in health-related behavior. Often the media are used to create an appropriate public image and an awareness of the health agency in the mind of the public. This is seen as an important step in the public education process, which may facilitate public involvement. Good personal relationships with media personnel and access to media coverage are also stressed by many of these agencies.

6. While there are conflicting research findings on the relative importance of the various mass media in influencing public perceptions of social problems, it does appear that the media are influential in the setting of public agendas. Again, the effects are subtle and difficult to isolate from many covarying social influence factors. It also appears that the press is more influential with

opinion leaders and that television is more influential with the general public.

7. The electronic media and television in particular are enormously influential on social values, although the mechanisms of this cultural influence are still poorly understood. Because the cultural environment provided through mass entertainment media forms an important window on the process of cultural change, popular culture should be a subject of study and observation for health educators.

8. Artistic and marketing judgments still direct most of the approaches of commercial advertising. Health educators can draw on the experience of advertisers and in particular their advertising research in audience segmentation, measurement of outcomes, and modeling of consumer behavior.

9. In general, neither the research evidence nor the actual programs reviewed would justify ARF's investing large amounts of resources in purchasing media space and time for a mass public education campaign. Based upon the expenditures of the alcohol industry in the promotion of its products, the Task Force estimates that yearly costs in excess of the Foundation's budget would be necessary to match its efforts.

10. There is little research evidence that mass media alone affect behavior and attitudes in substantial and lasting ways. The available evidence indicates that mass media are effective in causing small-scale attitudinal shifts. Hence, there is no good reason for ruling out experimental programs using the media to influence awareness and public attitudes.

11. The evidence also indicates that the media can establish a context which may facilitate the effects of other kinds of public education strategies. The behavioral skill instruction practised in the Stanford Heart Disease Prevention Project is an example of such an approach.

12. The evidence from communication research indicates that there are some established principles which cannot be ignored in any attempt at public

education of whatever scale.

a) Exposure to the message or messages must be assured through careful consideration of audience/target-group characteristics.
b) Attention to the message must be assured through the use of appropriate media, communicators, and message content.
c) Acceptance of a message is aided by (i) credible sources, (ii) concise and simple content, (iii) motivation, arousal, and entertainment value, (iv) repetition, and (v) social/interpersonal support.
d) The probability of behavior change is enhanced by message strategies that provide explicit instructions for change.
e) The probability that behavior change will be lasting is improved when a socially supportive environment reinforces the changes.

To conclude, there is no "magic bullet" for the field of public education. There will be no easy answers.

Despite the apparently unpromising mass-media approach to public persuasion, the Task Force recognized the pervasive nature of mass media and noted extensive use by industry, trade, commerce, politics, and special-interest groups. Each of these sectors of society spends significant sums in the belief that the media are a powerful influence upon public behavior. Absence of research data from such sources prevented the analysis of empirical results. It was recognized, however, that the alcohol beverage industry invests heavily in mass-media advertising of its products. Again, the results obtained are elusive. The Task Force concluded that the evidence regarding the impact of alcohol advertising is conflicting. Although advertising effects are difficult to measure, it seems that alcohol advertising influences consumption, drinking patterns, and the perception of the role of alcohol/drinking in society, particularly among the young. Moreover, it seems likely that the "lifestyle" advertising of alcohol in Ontario has been coincident with the trend toward increased liberalization. The possibility that the social effects of alcohol advertising might be cumulative over time, or additive along with other liberalizing factors, should not be ignored.

The Task Force noted, too, that alcohol use is portrayed frequently in television program content (in addition to advertising), often in a favorable light. There is some speculation that the portrayal of alcohol use on television encourages consumption via modeling or imitation. As with advertising, however, any effects of such protrayal on consumption will be difficult to detect over the short term, because the effects are likely to be subtle, cumulative, and indirect.

Alcohol Regulatory/Control Policies and Other Influences on Public Attitudes

The Task Force concluded that successful public persuasion, either through mass media or policy intervention, requires both an understanding of the impact of alcohol regulatory/control policies and an awareness of how such policies are made.

Evidence reviewed indicated that:

1. measures that significantly reduce the availability (physical, economic, etc.) will be associated with reduced alcohol consumption;
2. measures that significantly reduce or regulate alcohol consumption will be associated with a lower prevalence of alcohol problems;
3. some support is present for the argument that regulatory policies will be effective in influencing heavier drinkers;
4. the largest amount of data supporting the role of policy and its impact on availability is with respect to:
    a) economic availability or price: Higher relative price for alcohol is associated with lower consumption and vice versa. This relationship, however, is a complicated one, determined by "elasticity," "substitutability," and "market share." These data are derived from (i) static correlational data, (ii) time series data, and (iii) natural experiments involving radical changes in the relative price of alcohol.
    b) age-related availability: A reduction in the legal minimum drinking age is associated with an increase in alcohol consumption and related problems; little data are available concerning the effect of raising the legal minimum age.
    c) availability through outlet frequency: These data show mixed results,

but suggest that a radical change in such availability is associated with a corresponding change in consumption.

The impact of the total "package" of regulations is probably as significant as the impact of any single control measure; thus, individual small changes in policy may, on their own, have no discernible effect, but cumulatively they may significantly foster changes in alcohol consumption.

These considerations led the Task Force to believe that its mandate could not be fulfilled unless alcohol policy was set into a broader framework so that some of the more important variables affecting policy output and the parameters of successful ARF intervention in the alcohol policy process could be identified and assessed.

In extending its review of evidence to consider sources of public influence and persuasion beyond those exerted by the mass media, the Task Force noted the importance of public opinion and of the support of political leadership for alcohol control policies. It recognized the existence and relevance of policy analysis and action strategies and concluded that some involvement in these activities would be potentially effective in creating public support for ARF policies. It studied evidence on the role of elected and appointed officials of regulatory agencies and special-interest groups, the legislative process, and the formal and informal processes involved in the policy process. It concluded that the identification of relevant policy actors and their interrelationships was necessary and relevant in order to assess the potential of alternative strategies for ARF in such terms as their likelihood of success, probable opposition, and internal costs and benefits for the Foundation.

In its efforts to assess fully the bases of possible success for mass public persuasion initiatives, the Task Force found several areas in which data, required to support or clarify positions, were lacking. It concluded that a number of research studies need to be undertaken to fill such gaps.

In completing its review, the Task Force concluded that expectations of major attitudinal shifts through large-scale media education or advertising campaigns were

not confirmed by the research evidence, but that the mass media might be used to crystallize and develop existing support for control policies given adequate planning and resources.

Recommendations

1. The Task Force noted that many groups in society spend large sums on advertising in the belief (perhaps supported by unpublished evidence) that such techniques are effective. However, in view of the available evidence and considering the potentially available resources, *the Task Force recommends that the Addiction Research Foundation by itself not engage in a major mass-media paid advertising campaign to influence public attitudes toward alcohol use or control policy.*

2. Even though the research evidence on mass-media health promotion is equivocal and incomplete, the Task Force recognizes that other agencies, e.g., governments and the alcohol industry, have undertaken and will continue to undertake programs in this area. *The Task Force recommends, therefore, that ARF should take advantage of the opportunities these present. Specifically, it recommends that the Foundation:*

   a) *support other agencies or groups, governmental or non-governmental, in mass-media programming especially in areas of message content leading to greater understanding of the consequences of alcohol availability and consumption.*
   b) *undertake unpaid mass-media advertising or other public education programs to the extent that they have been assessed as cost-effective.*

3. The Task Force acknowledges the significant influence various elements of the mass media have on the general public, opinion leaders, and policymakers in Ontario. News programs, documentaries, and commercial and educational television, newspapers, radio, and the print media are key sources of information. *It recommends that the Addiction Research Foundation ensure that these media have maximum access to scientific data especially as related to*

consumption, control policies, and the consequences of the liberalization of alcohol availability.

Specifically, the Foundation should produce and make available:

a) news-oriented summaries of key research-based findings for the print, radio, and television media;
b) opportunities for interaction between news media personnel and research scientists, community workers, and clinicians;
c) documentary news programs produced either alone or in collaboration with the mass media;
d) ARF's programs or materials to local community media, through interpersonal contact.

4. The Task Force *recommends that the Addiction Research Foundation further develop its media relations function by:*
   a) *encouraging qualified staff of the Foundation to engage in more media activities;*
   b) *strengthening its staff capabilities in this area.*

5. In view of the present nature of television portrayal of alcohol use, *the Task Force recommends that the Foundation encourage the key decision-makers in the TV programming industry to avoid inappropriate or exaggerated portrayal regarding frequency, context, and consequences of use.*

6. In addition to the mass media, formal education is an important influence on public attitudes and beliefs. *The Task Force recommends that the Foundation, in collaboration with the Ministries of Education and Health and teachers' federations, develop a comprehensive program of alcohol education to be provided to Ontario students in the primary and secondary systems.* This involves consultation and advice with regard to the curricula required at each grade level (from kindergarten to grade 13), teacher training, and also collaboration on the development of materials for use by teachers and students in the school system in all grades.

7. In light of the complications in translating scientific findings into lay language, *the Task Force recommends that the Education Resources Division produce education materials appropriate in language and format to the target audiences.*

8. Further, to encourage public education the Task Force *recommends that the Foundation prepare and deliver to key audiences (opinion leaders and policy- and decision-makers), using appropriate communication methods and media, material concerning the single distribution/availability theory.*

9. After analyzing evidence on public education programming, the Task Force *recommends that the area of target-audience analysis be expanded, to determine levels of knowledge and ranges of opinion, attitudes, and beliefs, prior to the development of specific public education programs by the Foundation* or by others. The content and delivery method of the message to be conveyed to target groups should be shaped by the characteristics of target-audience segments - how they receive and access information, and who, within the target-audience groupings, would be considered opinion leaders or shapers of knowledge. Furthermore, ARF should monitor changes in the attitudes, knowledge, and opinions of these segments over time to determine the effectiveness of programs developed.

10. The Task Force *recommends that ARF should increase non-mass-media public education activities with respect to the effects of alcohol.* Specifically, ARF should develop education materials, workshops, seminars, and other face-to-face interactions to which knowledgeable individuals could be invited (practitioners and students of medicine, social work, education, hospitality industry, etc.). These workshops should be a regular activity of the Foundation and their proceedings should be publicized.

11. The Task Force *recommends that the communication authorities and the governments of Canada and Ontario increase the requirement of time on public radio and television to provide programming in health education, and specifically alcohol information and education.*

12. While the Task Force believes that it is important to encourage public acceptance of regulations and policy aimed at reducing hazardous alcohol consumption, the evidence suggests that public acceptance alone will not guarantee that such policies would be adopted. Other steps must be taken to bring about the desired outcome. The Task Force discussed at length the kinds of activities ARF might appropriately undertake in pursuit of its recommendations.

At one extreme, ARF could undertake high-profile intensive advocacy; at the other extreme, it could provide advice on policy issues to government only when requested. Intermediate postures include advocacy on specific issues, or automatic review by ARF scientists of proposed policy changes in order to advise government about health implications.

The Task Force concluded that a high-profile advocacy approach involves high risk and entails expertise that is probably not now available within the Foundation. On the other hand, maintaining an exclusively research orientation ignores the mandate given to ARF by the Province of Ontario.* A middle position appears to be more appropriate.

The Task Force *recommends that, consistent with the scientific evidence, the Foundation intensify its efforts to influence the adoption of such policies in Ontario. More specifically, it recommends that:*

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* *"to conduct, direct and promote programmes for,*
i) the treatment of alcoholics and addicts,
ii) the rehabilitation of alcoholics and addicts,
iii) the experimentation in methods of treating and rehabilitating alcoholics and addicts, and
iv) the dissemination of information respecting the recognition, prevention and treatment of alcoholism and addiction."

The posture of the organization is clarified in the statement "The Mission of the Addiction Research Foundation" by the President of the Foundation, Dr. J. B. Macdonald (February 5, 1979) (Appendix C). This statement discusses the nature of the Foundation, its origin, its establishment, and its purpose. It includes an advocacy role with the instrumentation of a Program Policy Committee. See chapter 10.

a) *ARF develop a network of personal contacts with policymakers and those who influence policy within the legislative and public service systems. Key individuals within ARF should maintain ongoing contact with their counterparts in the public service to ensure maximum opportunity for knowledge exchange and flow.*

b) *ARF ensure that groups beyond government, such as citizens' action groups and other community organizations, are provided with all the information necessary for appropriate public understanding of the debate on important public health and social policy issues in the alcohol area.*

c) *ARF collaborate with general health interests and organizations, thereby maximizing opportunities to address alcohol-related public health issues.*

d) *ARF adequately inform and brief its staff regarding policy initiatives.*

e) *ARF regional staff be encouraged to generate support for appropriate policies at the local level.*

13. In order to facilitate ARF's policy initiatives, ARF should expand its research interest in alcohol public policy to include the mechanisms of policy decision-making. The Task Force *recommends that the Foundation establish a policy analysis group to monitor the public policy process and to keep apprised of relevant developments.* The group should undertake such work as:

a) a thorough inventory of all alcohol-related policies emanating from the provincial government, their source, and responsibility for implementation;

b) analysis of public attitudes to alcohol policy measures;

c) studies of key decisions involving alcohol policy liberalization or its converse;

d) analysis of costs and benefits of alcohol.

14. Although the Task Force was not specifically charged with the responsibility of developing research recommendations, these emerged as data and evidence were reviewed in relation to our mandate. *The Task Force recommends that ARF:*

a) *develop longitudinal research on the impact of alcohol education programs within the school systems.*

b) *conduct further research on the nature and impact of advertising on various segments of Ontario society and specifically the impact on young people. Further research should be done to determine the impact of alcohol advertising from the industry's perspective, and the effect of counter-advertising.*

c) *conduct research into the relationship between media attention to alcohol issues and alcohol policy change.*

d) *undertake more research on the non-chronic health consequences of alcohol use.*

e) *continue research to identify the health risks associated with various levels of alcohol consumption.*

f) *routinely update and standardize statistical information concerning alcohol use in Ontario and its consequences. These data should include information such as the relationship of price and accessibility and comparable information from other jurisdictions.*

APPENDIXES

ADDICTION RESEARCH FOUNDATION STAFF LETTER

Dear Colleague:

The Education Resources Division of the Foundation is engaged primarily in the transfer of information to the public, to the government, to persons involved in dealing with problems of alcohol and addiction, to researchers. The Division uses print, oral and visual media ranging from pamphlets, books, a Journal, posters and telephone to video tape, cassettes and film. It operates a comprehensive specialized library. It distributes a large volume of materials free in Ontario and markets its products world-wide. Many of its materials are purely informational. Some are designed to persuade - to change attitudes and influence behaviour with a view to promoting prevention, better treatment, improved public health.

Both the Director, Mr. Schankula, and I believe the Division may have greater potential to assist the Foundation in achieving its objectives. It is engaged in a large volume of projects and the development of a large number of approaches to key messages, most of which reach specific audiences, some large, some small. On the whole the Division has tended to be responsive to perceived demands. We believe that the Foundation, through a collaborative effort led by the Education Resources Division might have greater impact by seeking to concentrate a significant share of its resources on a program of persuasion aimed at enhancing public recognition of the dimensions and importance of the problems associated with hazardous alcohol consumption and the need for control measures.

We believe this possibility needs careful examination. To this end I have established a Task Force on Public Education concerning alcohol policies. Its terms of reference are:

1) To briefly review evidence concerning the potential of mass educational persuasion to modify attitudes in such a way as to have a favourable impact on public health.

2) In the light of the above, to consider and advise on the practicality of the Foundation alone or in partnership mounting a program of educational persuasion designed to modify attitudes concerning hazardous alcohol consumption and to create public interest in appropriate control policies.

3) To report to the President by April 1, 1980.

August 30, 1979
Letter #27

If the findings in the first term of reference warrant proceeding, then the task force in addressing the second, will need to consider:

a) the options and implications of a comprehensive program versus a limited demonstration program

b) the possibility of partnership involving government

c) the resources required (financial and manpower)

d) the objectives and methods of a feasible program

e) the resources of the Foundation potentially available.

The following persons have accepted invitations to serve on the Task Force, which will be chaired by Mr. Schankula:

Dr. Werner Albert, Community Consultant, A.R.F., Windsor
Dr. David Bell, Professor of Political Science, York University
Dr. Jerry Conway, Manager, Planning Services, Communications Branch, Ministry of Health
Dr. Michael Goodstadt, Head, Education Section, Program Development Research Department, A.R.F.
Mr. Ran Ide, Past Chairman, Ontario Education Communications Authority
Dr. David Nostbakken, National Director of Public Education, Canadian Cancer Society
Dr. Ken O'Bryan, Head, Development and Production, Education Resources Division, A.R.F.
Mr. Henry Schankula, Director, Education Resources Division.

This is an important new initiative and we are fortunate in attracting members to the Task Force who are highly knowledgeable in relation to our purpose. I know Mr. Schankula will welcome in addition advice or comment from the staff of the Foundation.

Sincerely,

John B. Macdonald,
President.

Appendix B

Contributors to and Reviewers of the Task Force Report

The following provided comments and suggestions for direction at the early stage of the Task Force, in response to a memorandum providing opportunity for input:

Ms. P. Anotosha, Clinical Institute
Mr. Pat Ashwin, School of Addiction Studies
Ms. Marsha Barber, Education Resources Division
Mr. Clif Bennett, Orillia Centre, Regional Programs
Mr. Dave Britnell, Education Resources Division
Ms. Barbara Coultes, Education Resources Division
Mr. Andrew Dellio, Hamilton Centre, Regional Programs
Ms. Cathy Dixon, EAP Resource Centre
Mr. Dave Docherty, Owen Sound, Regional Programs
Dr. Mario Faveri, London, Regional Programs
Mr. John Fryters, R.N.A., Behavior Modification Therapist
Director, H.A.P.E.C. House, Inc., Belleville, Ontario
Mr. Alec Gabe, Education Resources Division
Dr. Fred Glaser, Clinical Institute
Dr. Glen Markle, Sudbury Centre, Regional Programs
Dr. D. E. Meeks, School of Addiction Studies
Mr. A. A. Nield, West Branch, Regional Programs
Mr. Peter Pharris, Peel Region, Regional Programs
Mr. Narendra Shah, Regional Programs
Dr. Harvey Skinner, Clinical Institute
Dr. R. Smart/Ms. C. Liban, Program Development Research
Mr. Garth Toombs, Regional Programs

We are grateful to the following for their response to a formal invitation to review the final draft:

Dr. Erwin P. Bettinghaus, Dean, College of Communication Arts and Sciences, Michigan State University

Dr. Robert C. Brook, Regional Programs Division

Mr. Ian R. Fife, Principal, Silver Creek Junior School, Weston, Ontario
Past President, Canadian Teachers' Federation; Past President, Ontario Teachers' Federation

Dr. Richard Gilbert, Social and Biological Studies Division

Mr. Marcus Grant, Director, Alcohol Education Centre, London, England

Mr. Horace Odgen, Director, Bureau of Health Education, Department of Health and Human Services, Center for Disease Control, Atlanta, Georgia

Mr. Robert E. Popham, Social and Biological Studies Division

Dr. James J. Rice, Assistant Professor, School of Social Work, McMaster University

Dr. Wolfgang Schmidt, Social and Biological Studies Division

Mr. Robert Simpson, Regional Programs Division

Dr. Eric Single, Social and Biological Studies Division

THE MISSION OF THE ADDICTION RESEARCH FOUNDATION*

John B. Macdonald

Although the Addiction Research Foundation has been in existence for 30 years ambiguity about its mission is common both within the Foundation and among observers. Many persons see the mission as that of conducting research concerned with addiction and, based on this perception, believe the Foundation should be always dispassionate, objective and neutral. The Foundation according to this viewpoint should conduct research, report the results and leave to others consideration of public policy issues and, to be consistent, questions of practice in relation to therapy and prevention. This particular viewpoint is reinforced by the name of the Foundation which identifies the role exclusively with research, unlike, for example, the Ontario Cancer Treatment and Research Foundation. The viewpoint is no doubt further reinforced by the reputation the Addiction Research Foundation has acquired as one of the leading research organizations in its field, world-wide. "By their fruits ye shall know them".

Nevertheless others, for good reason, hold a different view of the Foundation. Historically it was actively engaged in treatment. During the Sixties it established a network of treatment services across the Province. Its treatment role was reinforced by the demands of society that Ontario provide care for drug-hurt people during the late Sixties when drug use, especially among the young, became a matter of great public concern.

Although the Foundation began to withdraw from this particular role beginning in 1969 as the result of a policy adopted with the concurrence of the Minister of Health, its role in treatment was reinforced by the establishment of the Clinical Institute as a specialized hospital. Even within the Foundation and the staff of the Clinical Institute it was frequently not appreciated that the establishment of the hospital was intended, not simply to provide specialized services for Metropolitan Toronto, but to facilitate a program of clinical investigation and treatment research.

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* February 5, 1979.

As the Foundation withdrew from the direct provision of services in Ontario's communities it retained its Regional staff and identified their role with community development. Specifically, the Foundation engaged its Regional staff in translating the findings of research into practical treatment procedures and preventive options. The Regional staff however went well beyond the advice which could be justified on the basis of research findings. In response to requests for assistance, and sometimes in the absence of such requests, Regional staff performed a missionary role, advocating programs, organizational arrangements, therapeutic practices, educational activities and preventive schemes which they believed would be helpful. Needless to say many of these efforts when evaluated have proven to have offered no more than palliative value at best.

Concurrently with the community development thrust the Foundation has maintained an active program of information transfer to the public, to schools, to members of the health professions and others whose work intersects with the problems of addiction, to scientists and to policy makers. Programs of the Education Resources Division have taken the form of book publishing, pamphlet dissemination, publication of a Journal of news and comment, film and tape productions, etc. Many of the materials have been designed simply to inform - Fact Sheets on current knowledge about various drugs and their effects, for example. Others have been value-laden and have been designed to influence attitudes and behaviour - campaigns on the dangers of drinking and driving, for example. Some have been directed at law-makers and policy-makers. Advice on the merits of detoxication centers or on the legal limits of blood alcohol for drivers are examples.

In short the Foundation in practice has been a center for research, an organization providing treatment services, an advocate and facilitator of better treatment, an educational institution, a proponent of prevention, an an adviser to governments and communities. Its role has been seen differently by its various staff members depending on their own role and contribution and by external observers depending on how they have been served by the Foundation and no doubt what they would like the Foundation to be.

Beyond the difference in perceptions there are questions of principle which have

been the subject of debate over the years. The central issue here is not what the Foundation has done but what, as a research organization, it should or should not do. It has been argued by some that the Foundation should refrain from offering advice, especially on matters of policy because the Foundation is a scientific organization concerned with facts and probabilities (where it can exercise expertise) but that on matters of values its judgment is not expert. As observed by the Kalants, "there do no appear to be any universally accepted experts in such matters. Therefore every citizen is entitled to form his own value judgments, once he has taken the trouble to learn as many of the facts as he possibly can. Perhaps it would be better to say that every citizen really has the obligation to form these value judgments for himself rather than leave it to some 'expert' to tell him what he should believe."*

It can be seen from the above quotation that the argument applies logically to the offering of advice to individuals as well as to the offering of policy advice to governments. The Kalants indeed make the point that "The same process of drawing up a balance sheet between positive and negative features of drug use should be the process by which the citizen ultimately makes his own judgment concerning drug use."** When the Kalants consider the role of expert advice (on questions of value) in relation to policy issues they observe that "If we agree that an enlightened public is a basic requirement for the functioning of society, then it is obvious that every conscientious citizen has to go through the process of reaching value judgments for himself on many important social questions. Only then can he direct his government rather than be directed by it."***

An additional argument against the Foundation offering advice or adopting a position in relation to policy options is that it might inhibit scientific objectivity. The Foundation, consciously or unconsciously through its choice of areas for investigation or through the introduction of subtle biases might seek to bolster its declared position, thus diminishing its credibility as a source of objective information.

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* Kalant and Kalant: Drugs, Society and Personal Choice, PaperJacks, Don Mills, 1971. p. 10.

** ibid p. 12

*** ibid p. 11

These arguments present certain difficulties. The first is that the conclusions reached by the Kalants seem to be limited by them to just those matters where the judgments are most difficult to reach. They state that "If the harmful effects of drug use were severe, obvious, and widespread, there would probably be no argument about the justification for government intervention. There can be little argument, for example, that it is desirable to control the sale of deadly poisons, such as strychnine. The hazards of unrestricted sale of strychnine are obvious, and it is almost impossible to argue that there would be any benefit resulting from its free availability. In contrast, the widespread voluntary use of substances which alter mood or perception implies that the people who use these drugs derive some pleasure or perceived benefit from them. At the same time the harm resulting from the use of these drugs is not always obvious or particularly widespread; otherwise, most users would be strongly inclined to give them up. Therefore, in deciding whether the use of certain substances should be permitted, or forbidden, or subjected to some type of control, a government should ideally consider all the pleasure or benefit obtained by the drug users as well as all the harm or injury resulting from the drug use."* In other words advice becomes improper when the decision is difficult. Thus it is reasonable for the scientific organization to advocate the control of sale of strychnine, or the adoption of a legal limit for blood alcohol for drivers or warnings on cigarette packages but it is unwise when the question is control of alcohol consumption or decriminalization of marijuana possession.

The problem with this argument is that in many complex matters of social policy it is difficult if not impossible for the majority of citizens to be well enough informed. Likewise governments on many matters feel the need for "expert" advice. Such advice often is not limited to "the facts" but encompasses judgments as to policy derived only partly from the facts. It would be unreasonable for the government, for example, to set monetary policy on the basis of what citizens understand about the value of the Canadian dollar or interest rates. The government nominally trusts this complex matter to the Bank of Canada. In reality it obtains expert advice from the Bank of Canada and acquiesces when the Bank acts.

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* Ibid p. 11, 12

There is in fact widespread recognition by governments that they need many kinds of expert advice which involve a combination of technical or scientific expertise and judgment as to useful policies related to that expertise. Governments want the advice of those whom they consider to be best informed. The Economic Council of Canada each year makes specific policy recommendations to the government of Canada. These recommendations are often ignored but they represent a quality of advice which the government has sought deliberately for fifteen years. The Science Council of Canada offers advice to government on science policy. Again government makes (or fails to make) the decisions but it has the benefit of advice which is well-informed but also value-laden. Many organizations with expertise and which conduct research are expected to be a source of advice. In respect of the government of Canada some of them are Central Mortgage and Housing Corporation, Defense Research Board, Fisheries Research Board, Atomic Energy Control Board.

Of course many more agencies established by government have no right to advise. For example Statistics Canada is a compiler of information but would be acting improperly to offer advice on the basis of its findings.

Sometimes governments establish arrangements where the act of doing so represents value judgments which government expects to be applied. When governments establish departments of Public Health or define the powers of Medical Officers of Health they are stating a) that the protection of public health is a value to which they have some commitment, b) that they are prepared to delegate certain powers over the control of public health to experts, c) that they expect and require advice concerning policy from persons with expertise.

The difficulty with the argument that adopting a position endangers scientific objectivity is that many research organizations <u>are</u> mission-oriented. Their mandate introduces a bias. Atomic Energy of Canada would be unlikely to conduct research which will show higher benefits from hydro electric power. The Department of Agriculture will hardly be prepared to support research on "farming the seas". The Defense Research Board is unlikely to fund research on disarmament. National Health and Welfare's Food and Drug Directorate will be disinterested in studying the

benefits of cigarette smoking. Mission-oriented research organizations have corporate biases and these should not only be acknowledged but should be taken into account in judging their efforts.

Likewise individual scientists have biases, whether they are engaged with a mission-oriented agency or a university. Even most of those who are conducting basic research have some notions of its potential relevance to human welfare. Most scientists today have concern also for the moral and ethical implications of their research. Many refuse to have anything to do with weapons research. Scientists have hemmed themselves in to minimize danger from D.N.A. recombination experiments. Scientists working for the Addiction Research Foundation are unlikely to be interested in searching for benefits of heroin use. Scientists working for the tobacco industry are not seeking additional evidence of damage to health. In short, scientists do have biases and generally have some capability of recognizing them. Bias is inevitable but science is organized to make corrections.

In the case of the able scientist bias is unlikely to be manifested in his choice of subjects to be investigated. He is unlikely to allow his bias to affect his experimental design and (with varying degrees of success) will try to exclude bias from the interpretations and conclusions he reaches from his findings. If he is not an able scientist bias may be evident in his experimental designs and his interpretations. The nature of the scientific enterprise will correct for such errors. Scientists publish or speak and they are expected to tell exactly what they saw or did to the very best of their knowledge. Other scientists listen respectfully whether the speaker is a Nobel Prize winner or a novice. They go back to their laboratories or their study and check, confirm, reject or reinterpret. The code is severe, but its operation has been a model of democracy.

The Addiction Research Foundation was established by an Act of the legislature. In deciding the mission of the Foundation this is the governing document. The Act states that the objects of the Foundation are:

> "a) to conduct and promote a programme of research in alcoholism and addiction; and

b) to conduct, direct and promote programmes for,

(i) the treatment of alcoholics and addicts,

(ii) the rehabilitation of alcoholics and addicts,

(iii) the experimentation in methods of treating and rehabilitating alcoholics and addicts, and

(iv) the dissemination of information respecting the recognition, prevention and treatment of alcoholism and addiction."

It is worth noting that these objects are different from those stated in the legislation governing the other two statutory health Foundations in Ontario - the Ontario Cancer Treatment and Research Foundation and the Ontario Mental Health Foundation. Both the latter empower these Foundations to conduct research into diagnosis and treatment and to disseminate information concerning early recognition and treatment. There is no mention of prevention.

Given the mandate of the A.R.F.'s Act an advisory, indeed an advocacy role seems inescapable. How else can one conduct, direct and promote the dissemination of information concerning prevention. The phrase "dissemination of information" in fact seems redundant in this context and the mandate includes promoting prevention.

Thus the Addiction Research Foundation is an agency with a point of view or a value system built into the Act. The Act represents the voice of the legislature and the Foundation therefore is bound to look at the field of Addiction with a set of values consistent with those of the legislature. It is concerned with research, treatment and prevention. The context is public or societal health* and the Foundation deals with the problems of hazardous use of drugs. It is concerned with benefits only as they bear on alternative approaches to solving the problems.

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* Public health is concerned with the interactions or agents of disease, the host and the environment. Thus public health considerations include not only the physical, mental and social consequences of hazardous use of drugs but also the consequences of policies and laws which bear on such social ills as poverty and criminalization - environmental breeding grounds for drug abuse.

Advocacy is inescapable. The problem is how to provide it and what safeguards are needed.* In considering how to offer advice or engage in advocacy it can be assumed that on public policy matters no one is in a position to represent the views of the Foundation as a whole. Members of the Board, though better informed than most lay groups, lack the technical expertise and depth of knowledge which would underpin most positions of advocacy. The staff of the Foundation would rarely if ever be unanimous on a policy issue. A second assumption (which seems to be unfortunately beyond the control of the Foundation) is that when anyone from the Foundation makes a public statement the press and the public are likely to interpret the statement as the voice of the Foundation.

The method of dealing with advice and advocacy which the Foundation has adopted has been to establish a Program Policy Committee composed of the Directors of Program Divisions, the President and the Executive Vice-chairman, supplemented as necessary with persons having particular needed expertise. This Committee's terms of reference are:

> To develop proposals concerning goals and policy in relation to Foundation programming;
>
> To develop advice to the Government of Ontario concerning policy issues related to alcohol and drug problems.

The Committee is responsible for developing positions on a variety of topics, sometimes at the request of government, sometimes on the initiative of the Committee itself, sometimes to provide a judgment on the advice and recommendations in the Reports of Task Forces established to consider various problems in depth. Recent examples include a Report on Treatment Services for Alcoholism, a Report on Employee Assistance Programming; a Report on Halfway Houses.

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* It is worth noting that the Minister of Health has stated that he and the Government expect the Foundation's advice. In some instances the Minister has specifically sought the Foundation's advice. The Minister also stated that the Foundation should feel free to make its advice public, recognizing that the Government may or may not choose to act on it.

The safeguards under which the Committee operates are several:

1) The Committee speaks only for itself. It advises Government and advises the managing officers of the Foundation. Its public statements will be identified as statements of the Committee rather than statements of the Foundation.
2) The Committee will attempt always to distinguish between scientific findings and its value judgments.
3) The Committee will offer advice only when it has a high level of confidence and consensus concerning the public health consequences of its advice.
4) The Committee will make explicit the public health bias underlying its advice.
5) The Committee will limit itself to advocacy making clear the facts and the assumptions underlying its position. It will avoid strictly engaging in propaganda - the use of deception or distortion.
6) The Committee will avoid stifling scientific or policy debate. It will encourage research the results of which might challenge the advice emanating from the Committee.
7) The President will keep the Board informed in advance of statements which the Committee proposes to publish.

POSTSCRIPT

One of the reasons the legitimacy of offering advice or engaging in advocacy has been so debated in this field is because for the most popular drugs the benefits and the costs are complex and make policy decisions exceedingly difficult. The problems are perhaps most glaring when one looks at the policies of governments in relation to tobacco smoking. The world's five major cigarette companies are the Chinese Government monopoly, the British American Tobacco Company, the Soviet and Japanese Government monopolies and Philip Morris Inc. Three of the top five are public rather than private enterprises. Taxes on tobacco products in the U.S.A. yield about $6 billion. The U.S. government in mid 1977 held tobacco stocks worth $659 million. The U.S. Department of Agriculture spent $65 million in 1977 supporting the industry. Against the $6-$7 billion value to government, direct health costs in the U.S. of treating smoking-generated disease range from $5 to $15

billion* - much of which represents private cost. Who benefits and who loses in this gigantic struggle?

A more amusing example of the difficulties was offered in an address to the legislature by a Mississippi State Senator in 1958.**

> *You have asked me how I feel about whisky. All right, here is just how I stand on this question:*
>
> *If, when you say whisky, you mean the devil's brew, the poison scourge, the bloody monster that defiles innocence, yea, literally takes the bread from the mouths of little children; if you mean the evil drink that topples the Christian man and woman from the pinnacles of righteous, gracious living into the bottomless pit of degradation and despair, shame and helplessness and hopelessness, then certainly I am against it with all of my power.*
>
> *But, if when you say whisky, you mean the oil of conversation, the philosophic wine, the stuff that is consumed when good fellows get together, that puts a song in their hearts and laughter on their lips and the warm glow of contentment in their eyes; if you mean Christmas cheer; if you mean the stimulating drink that puts the spring in the old gentleman's step on a frosty morning; if you mean the drink that enables a man to magnify his joy, and his happiness, and to forget, if only for a little while, life's great tragedies and heartbreaks and sorrows, if you mean that drink the sale of which pours into our treasuries untold millions of dollars, which are used to provide tender care for our little crippled children, our blind, our deaf, our dumb, our pitiful aged and infirm, to build highways, hospitals and schools, then certainly I am in favor of it.*
>
> *This is my stand. I will not retreat from it; I will not compromise.*

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* Eckholm, E., Cutting Tobacco's Toll, a Worldwide Challenge, Science Forum 12, Number 1: 15-19: 1979

** Quoted by Goodwin, D., Is Alcoholism Hereditary? Oxford University Press, 1976, p. 4

ADDICTION RESEARCH FOUNDATION
Toronto, Canada